IRC 2023

IET INTERNATIONAL RADAR CONFERENCE 2023

3-5, December, 2023 Chongqing, China

FINAL PROGRAM

Sponsors:

- Beijing Institute of Technology
- The Institution of Engineering and Technology
- Radar Society of Chinese Institute of Electronics
- Signal Processing Society of Chinese Institute of Electronics

Organizer:

- Beijing Institute of Technology Chongqing Innovation Center

Co-organizers:

- The No.23 Institute of The Second Academy of China Aerospace Science & Industry Corporation
- The 38th Research Institute of China Electronics Technology Group Corporation
- Institute of Remote Sensing Satellites, China Academy of Space Technology
- Aerospace Information Research Institute, Chinese Academy of Sciences
- The 14th Research Institute of China Electronics Technology Group Corporation

Content

Welcome Message from IET President

Hello everyone. I'm Professor Bob Cryan and I'm proud to be the Emeritus President of the Institution of Engineering and Technology – the IET. It is my great pleasure to welcome you all to Radar 2023 – a prestigious conference where you'll hear the latest trends, innovations and developments in radar. It is a real honor to be partnering with the Beijing Institute of Technology on the 6th edition of the Radar conference. The growing success of this conference over the years reflects the great technological development happening in China in the radar technology industry. Events, such as this one today, are incredibly important to bring the right people from all over the world together into one space – and it has never been more important for us all to work closely and to learn from each other.

For those of you who don't know, the IET is a diverse home for engineering and technology throughout the world and is one of the largest professional institutions. We have 154,000 members in 148 countries, including around 9,000 members in Greater China. We're actually celebrating a special anniversary this year. 100 years ago in 1923, the IET opened its China Local Centre in Shanghai. This is a great example of the long history and friendship we have with China, and we look forward to continuing this for another 100 years! The IET's mission is to inspire, inform and influence the global engineering community, supporting technology innovation to meet the needs of society. In short, we exist to help engineer a better world and this drives everything that we do. We're passionate about supporting engineers and technicians at every stage of their journey – from students and apprentices at the start of their career right through to experience professionals with established skills and capabilities. We're a home for life for engineers and technicians across all sectors and disciplines, of course including those working in radar. We provide opportunities where they can come together to discuss, debate and create solutions to the important issues where radar can have a significant impact.

Across all of our work, we connect individuals with the cutting edge knowledge they need, whilst also bringing them together to make better sense of the challenges we're facing and how to solve them. We believe that by working collaboratively with organizations from all around the world and in particular in China, the engineering community can deliver the solutions that ensure a more digital, smarter and brighter future for us all. By thinking long-term and globally, striving to innovate, using all resources responsibly and championing climate change across governments, industries and wider society, our profession is in the position to foster real change and progress. I'd like to close by thanking the conference organising committee and the Beijing Institute of Technology for inviting me here today to welcome you. From the IET, we look forward to continuing the relationship and building on how we work with many of you in this conference, for years to come.

I hope you enjoy the conference and make the most of this excellent opportunity to learn from the incredible experts here.I wish you and the Radar conference 2023 every success.
Thank you.

Bob Cryan

Prof. Bob Cryan, President of the Institution of Engineering and Technology
Honorary Chair of IET International Radar Conference 2023

Welcome Message from Honorary Chair

The IET International Radar Conference was initiated by The Institution of Engineering and Technology and the Beijing Institute of Technology in 2008. This series of conferences is held twice every five years. The first conference was held in April 2009 in Guilin, China. IET International Radar Conference 2023 is the sixth IET International Radar Conference in China. Today, it is successfully held in Chongqing, a beautiful mountain city. As the President of the Beijing Institute of Technology and one of the Honorary Chairs of this conference, I sincerely congratulate the opening of this great event.

In today's world, with the development of information technology, many advanced radar systems, such as automotive radars, deformation measurement radars, and Foreign Object Debris (FOD) radars, help improve human living standards and guarantee the safety of people's lives and properties. The combination of radars and artificial intelligence, biomedical science, the Internet of Things, and some other emerging fields also provide new opportunities to drive the innovation of radar techniques. It can be seen that more civil radars will play continuously important roles in people's modern lives in the near future. To facilitate the innovative development of radar technology, this conference brings the best scientists, researchers, and engineers in the radar research field together, exchanging innovative ideas and promoting cooperation.

As one of the most important sponsors of the series of conferences, Beijing Institute of Technology (BIT) has always been devoted to the economic and social development of China and the technical progress of humans since its establishment in 1940. BIT insists on aiming at the development frontier of the world's science and technology, and contributes to the promotion of technological development in related fields, the improvement of people's livelihood, and the well-being of all humankind with worldwide scholars. As the host of this conference, we will certainly make every effort to do the careful organization and arrangements to make the conference successful.

Finally, I wish this conference a complete success! I also wish the experts, scholars, and friends all the best in Chongqing! I sincerely invite you to visit BIT and the Chongqing Innovation Center of BIT for further communication when you are convenient.

Prof. Teng Long, President of Beijing Institute of Technology
Academician of Chinese Academy of Engineering
Honorary Chair of IET International Radar Conference 2023

Welcome Message from General Chair

It is our great pleasure to welcome you to participate in IET International Radar Conference 2023, which is the sixth IET International Radar Conference series in China after the first five successful conferences held in April 2009, Guilin, April 2013, Xi'an, October 2015, Hangzhou, October 2018, Nanjing and 2020 (published conference papers only), respectively. Becoming more and more active, this conference continues to provide a platform for radar experts and technicians to exchange ideas and achievements by introducing the latest technological development and academic research hot issues of the radar technology.

This conference is sponsored by Beijing Institute of Technology, the Institution of Engineering and Technology, Radar Society of Chinese Institute of Electronics and Signal Processing Society of Chinese Institute of Electronics, organized by Beijing Institute of Technology Chongqing Innovation Center, and co-organized by the No. 23 Institute of the Second Academy of China Aerospace Science & Industry Corporation, the 38th Research Institute of China Electronics Technology Group Corporation, Institute of Remote Sensing Satellites of the China Academy of Space Technology, Aerospace Information Research Institute of the Chinese Academy of Sciences and the 14th Research Institute of China Electronics Technology Group Corporation. We would like to thank the technical co-sponsor, National Key Laboratory of Science and Technology on Space-Born Intelligent Information Processing, National Key Laboratory of Microwave Imaging Technology of the Chinese Academy of Sciences, Key Laboratory of Electronic and Information Technology in Satellite Navigation of the Ministry of Education, Beijing Key Laboratory of Embedded Real-Time Parallel Processing Technology, Key Laboratory of Intelligent Unmanned System Technology, Key Laboratory of Aperture Array and Space Application, Advanced Technology Research Institute of the Beijing Institute of Technology, Yangtze Delta Region Academy of Beijing Institute of Technology, National Nature Science Foundation of China, Chinese Institute of Electronics, China Radar Industry Association, Beijing Institute of Electronics, Intelligent Transportation and Information Engineering Society of Chinese Institute of Electronics, China Hi-Tech Industrialization Association Intelligent Information Processing Industrialization Branch, Chinese Institute of Command and Control and China Instrument and Control Society, for their strong supports to this conference. We would also express appreciation to all authors, keynote and tutorial speakers for sharing their unique insight into their professional specific areas. Special thanks to the Technical Program Committee for reviewing and selecting the excellent papers.

As you know, Chongqing is one of four municipalities and the biggest city in China in terms of area and population, which is a popular destination for travelers, and also well known for ancient Three Kingdom culture and Three Gorges culture. On behalf of entire organizing committee, sponsors and supporters, we hope you participate in passionate discussions, exchange ideas and enjoy IET International Conference 2023 in this beautiful city.

Prof. Xiaopeng Yang, Beijing Institute of Technology
General Chair of IET Radar Conference 2023

Welcome Message from TPC Chair

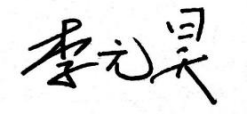
On behalf of the Technical Program Committee, I would like to welcome you to the IET International Radar Conference 2023 (IRC 2023). IET International Radar Conference 2023 is IET's 6th international conference held in China specifically dedicated to radar concepts and technologies. The objectives of the series events are to showcase the latest developments in radar technology and to explore related academic research issues, especially on the new applications of radar technology. The lively response to our call for papers confirms again that the IET International Radar Conference is becoming the worldwide forum in the field of radar.

All submitted papers to this conference were reviewed by both the technical program committee and peer-reviewed experts based on publication format, originality, significance, and clarity. Finally, 148 papers were selected for oral presentation and 611 papers for interactive poster presentation. This conference is honored to feature 10 keynote speeches, 3 tutorials, and 87 invited talks from distinguished experts who will share with us their latest research results and their insights into the future radar technique development. During the conference, 30 oral presentation sessions and 7 parallel poster presentation sessions will be given. To our pleasure, the selected papers and invited talks cover a wide range of Advanced Radar Systems and Signal Processing Algorithms, Target Scattering Analysis and Modeling, Marine Target Detection, SAR/ISAR Imaging and Interferometry, Deep Learning for Radar-based Target Recognition, Advanced Radar Application, etc. Parallel to the conference, a commercial exhibition is arranged to show the advances in radar-related technology and publishment.

I would like to express my thanks to all the authors for their outstanding contributions. In particular, I would like to send my appreciation to all technical program committees and reviewers for their hard work and contribution to the conference.

I wish the IET International Radar Conference 2023 a great success. And I hope you will enjoy the conference and your stay in Chongqing.

Thank you!



Assoc. Prof. Yuanhao Li, Beijing Institute of Technology
Technical Program Committee Chair of IET International Radar Conference 2023

Organizations

Sponsors:
Beijing Institute of Technology
The Institution of Engineering and Technology
Radar Society of Chinese Institute of Electronics
Signal Processing Society of Chinese Institute of Electronics

Organizer:
Beijing Institute of Technology Chongqing Innovation Center

Co-organizers:
The No. 23 Institute of the Second Academy of China Aerospace Science & Industry Corporation
The 38th Research Institute of China Electronics Technology Group Corporation
Institute of Remote Sensing Satellites, China Academy of Space Technology
Aerospace Information Research Institute, Chinese Academy of Sciences
The 14th Research Institute of China Electronics Technology Group Corporation

Technical Sponsors:
National Key Laboratory of Science and Technology on Space-Born Intelligent Information Processing
National Key Laboratory of Microwave Imaging Technology, Chinese Academy of Sciences
Key Laboratory of Electronic and Information Technology in Satellite Navigation, Ministry of Education
Beijing Key Laboratory of Embedded Real-Time Parallel Processing Technology
Key Laboratory of Intelligent Unmanned System Technology
Key Laboratory of Aperture Array and Space Application
Advanced Technology Research Institute, Beijing Institute of Technology
Yangtze Delta Region Academy of Beijing Institute of Technology
Innovative Equipment Research Institute of Beijing Institute of Technology in Sichuan Tianfu New Area
National Nature Science Foundation of China
Chinese Institute of Electronics
China Radar Industry Association
Beijing Institute of Electronics
Intelligent Transportation and Information Engineering Society of Chinese Institute of Electronics
China Hi-Tech Industrialization Association Intelligent Information Processing Industrialization Branch
Chinese Institute of Command and Control
China Instrument and Control Society

Media Supporters:
Science China Information Sciences
Journal of Signal Processing
Journal of Radars
Modern Radar
Radar Science and Technology

Committee

Honorary Chairs:
Prof. Bob Cryan, President of the Institution of Engineering and Technology, UK
Prof. Manqing Wu, Vice President of Chinese Academy of Engineering, China
Prof. Teng Long, President of Beijing Institute of Technology, China

General Chair:
Prof. Xiaopeng Yang, Beijing Institute of Technology, China

General Co-Chairs:
Prof. Cangsong Jin, The No. 23 Institute of the Second Academy of China Aerospace Science & Industry Corporation, China
Prof. Chengwei Zhang, The 38Th Research Institute of China Electronics Technology Group Corporation, China
Prof. Jianming Wang, The 14th Research Institute of China Electronics Technology Group Corporation, China
Prof. Qingjun Zhang, Institute of Remote Sensing Satellites, China Academy of Space Technology, China
Prof. Yu Wang, Aerospace Information Research Institute, Chinese Academy of Sciences, China
Prof. Liang Chen, Beijing Institute of Technology, China

Technical Program Committee Chair:
Dr. Yuanhao Li, Beijing Institute of Technology, China

Technical Program Committee Co-Chairs:
Prof. Jiaguo Lu, The 38Th Research Institute of China Electronics Technology Group Corporation, China
Prof. Fei Meng, The No. 23 Institute of the Second Academy of China Aerospace Science & Industry Corporation, China
Prof. Pin Li, The 14th Research Institute of China Electronics Technology Group Corporation, China
Prof. Mingming Bian, Institute of Remote Sensing Satellites, China Academy of Space Technology, China
Dr. Yanhua Wang, Beijing Institute of Technology, China

Technical Program Committee:
Prof. Xueru Bai, Xidian University, China
Dr. Zengdi Bao, Beijing Institute of Technology, China
Prof. Liheng Bian, Beijing Institute of Technology, China
Dr. Ling Chang, Universiteit Twent, Netherlands
Dr. Shaoqiang Chang, Beijing Institute of Technology, China
Prof. Lawrence Chen, McGill University, Canada
Prof. Yong Chen, The 38Th Research Institute of China Electronics Technology Group Corporation, China
Dr. Zhanye Chen, Chongqing University, China
Dr. Zhiyang Chen, Beijing Institute of Technology, China
Prof. Guolong Cui, University of Electronic Science and Technology of China, China
Dr. Kai Cui, Beijing Institute of Technology, China
Prof. Zegang Ding, Beijing Institute of Technology, China
Prof. Yuandan Dong, University of Electronic Science and Technology of China, China
Dr. Zehua Dong, Beijing Institute of Technology, China

Prof. Lan Du, Xidian University, China
Dr. Yanlei Du, Aerospace Information Research Institute, CAS, China
Prof. Mihai Dutcu, DLR, German
Dr. Huayu Fan, Beijing Institute of Technology, China
Prof. Zesong Fei, Beijing Institute of Technology, China
Dr. Weike Feng, Air force Engineering University, China
Dr. Jean-Michel Friedt, University of Franche Comte, France
Dr. Shisheng Guo, University of Electronic Science and Technology of China, China
Prof. Xiaolei Han, Institute of Remote Sensing Satellites, China Academy of Space Technology, China
Dr. Yuqi Han, Beijing Institute of Technology, China
Dr. Fengming Hu, Fudan University, China
Dr. Weidong Hu, Beijing Institute of Technology, China
Prof. Pingping Huang, Inner Mongolia University of Technology
Dr. Yan Huang, Southeast University, China
Dr. Zhongling Huang, Northwestern Polytechnical University, China
Prof. Tian Jin, National University of Defense Technology, China
Prof. Youngwook Kim, Sogang University, Korea
Prof. Ercan E. Kuruoglu, ISTI - CNR/ Tsinghua-Berkeley Shenzhen Institute, China
Dr. Lan Lan, Xidian University, China
Dr. Tian Lan, Beijing Institute of Technology, China
Prof. Dong Li, Chongqing University, China
Dr. Gen Li, Beijing Institute of Technology, China
Prof. Hai Li, Civil Aviation University of China, China
Dr. Han Li, Beijing Institute of Technology, China
Prof. Jianbing Li, National University of Defense Technology, China
Dr. Linghao Li, Beijing Institute of Technology, China
Dr. Tao Li, Land Satellite Remote Sensing Application Center, Ministry of Natural Resources, China
Dr. Weidong Li, Beijing Institute ofTechnology, China
Prof. Yachao Li, Xidian University, China
Prof. Yongsheng Li, National Institute of Natural Hazards, Ministry of Emergency Management of China, China
Prof. Zhongyu Li, University of Electronic Science and Technology of China, China
Dr. Zhennan Liang, Beijing Institute of Technology, China
Prof. Dan Liu，The No. 23 Institute of the Second Academy of China Aerospace Science & Industry Corporation, China
Dr. Feifeng Liu, Beijing Institute of Technology, China
Prof. Hai Liu, Guangzhou University, China
Dr. Jun Liu, University of Science and Technology of China, China
Dr. Yanyang Liu, Shanghai institute of satellite engineering, China
Dr. Carlos López-Martínez, Universitat Politècnica de Catalunya, Spain
Dr. Pingping Lu, Aerospace Information Research Institute, Chinese Academy of Sciences, China
Prof. Yilong Lu, Nanyang Technological University, Singapore
Dr. Linqing Luo, Lawrence Berkeley National Laboratory, USA
Prof. Ying Luo, Air Force Engineering University, China
Prof. Andrea Monti-Guarnieri, Politecnico di Milano, Italy
Dr. Yongfei Mao, Institute of Remote Sensing Satellites, China Academy of Space Technology, China
Dr. Danilo Orlando, Università degli Studi “Niccolò Cusano”, Italy
Dr. Junhui Qian, Chongqing University, China
Dr. Xiaodong Qu, Beijing Institute of Technology, China
Prof. Yinghui Quan, Xidian University, China
Prof. Hanssen Ramon, Delft University of Technology, Netherlands
Prof. Piotr Samczynski, Warsaw University of Technology Institute of Electronic Systems, Poland
Dr. Hao Shi, Beijing Institute of Technology, China
Prof. Zhiguo Shi, Zhejiang University, China

Dr. Nan Su, Harbin Engineering University, China
Prof. Guangcai Sun, Xidian University, China
Dr. Zhichao Sun, University of Electronic Science and Technology of China, China
Prof. Weixian Tan, Inner Mongolia University of Technology, China
Prof. Haihong Tao, Xidian University, China
Prof. Jing Tian, Beijing Institute of Technology, China
Prof. Weiming Tian, Beijing Institute of Technology, China
Dr. Bin Wang, Beijing Institute of Technology, China
Dr. Jianping Wang, Delft University of Technology, Netherlands
Prof. Qingwang Wang, Kunming University of Technology, China
Dr. Rui Wang, Beijing Institute of Technology, China
Dr. Yan Wang, Beijing Institute of Technology, China
Dr. Yanhua Wang, Beijing Institute of Technology, China
Prof. Yong Wang, Harbin Institute of Technology, China
Dr. Yupei Wang, Beijing Institute of Technology, China
Dr. Zhen Wang, Beijing Institute of Technology, China
Dr. Yangkai Wei, Beijing Institute of Technology, China
Dr. Cai Wen, Northwest University, China
Prof. Junjie Wu, University of Electronic Science and Technology of China, China
Dr. Congan Xu, Naval Aviation University, China
Dr. Gang Xu, Southeast University, China
Prof. Shuwen Xu, Xidian University, China
Dr. Jian Xue, Xi'an University of Posts & Telecommunications, China
Prof. Jian Yang, Tsinghua University, China
Dr. Mengshi Yang, Yunnan University, China
Prof. Yuhao Yang, The 14th Research Institute of China Electronics Technology Group Corporation, China
Dr. Xiaolu Zeng, Beijing Institute of Technology, China
Prof. Fan Zhang, Beijing University of Chemical Technology, China
Prof. Lei Zhang, Sun Yat-sen University, China
Prof. Rui Zhang, Southwest Jiaotong University, China
Dr. Tianyi Zhang, Beijing Institute of Technology, China
Prof. Weifeng Zhang, Beijing Institute of Technology, China
Prof. Zhe Zhang, AIR, CAS, China
Prof. Jibin Zheng, Xidian University, China
Prof. Le Zheng, Beijing Institute of Technology, China
Dr. Rui Zhu, Beijing Institute of Technology, China

Award Committee Chair:
Prof. Cheng Hu, Beijing Institute of Technology, China

Award Committee Co-Chair:
Dr. Rui Wang, Beijing Institute of Technology, China

Publication Committee Chair:
Prof. Quanhua Liu, Beijing Institute of Technology, China

Publication Committee Co-Chair:
Ms. Kruna Vukmirovic, The Institution of Engineering and Technology, UK

International Advisory Committee Chairs:
Prof. Tao Zeng, Beijing Institute of Technology, China
Prof. Kai Han, Beijing Institute of Technology Chongqing Innovation Center, China

International Advisory Committee:

Prof. Maksim Bano, EOST/ITES, Strasbourg University, France
Dr. Andrea Buono, Università degli Studi di Napoli Parthenope, Italy
Prof. Jie Chen, Beihang Univeristity, China
Prof. Mihai Dutcu, DLR, German
Prof. Aly Fathy, University of Tennessee, USA
Prof. Dr. Markus Gardill, Brandenburg University of Technology Cottbus-Senftenberg, Germany
Prof. Stephen Hobbs, Cranfield University, UK
Prof. Wen Hong, Chinese Academy of Sciences, China
Prof. Defeng Huang, University of Western Australia, Australia
Dr. Julien Le Kernec, University of Glasgow, France
Prof. Ercan Engin Kuruoglu, Tsinghua-Berkeley Shenzhen Institute, China
Prof. Gang Li, Tsinghua University, China
Prof. Zhenhong Li, Chang'an University, China
Prof. Yilong Lu, Nanyang Technological University, Singapore
Prof. Andrea Monti-Guarnieri, Politecnico di Milano, Italy
Prof. Roberto Orosei, Istituto Nazionale di Astrofisica/ Università di Bologna, Italy
Prof. Hanssen Ramon, Delft University of Technology, Netherlands
Prof. Motoyuki Sato, Tohoku University, Japan
Dr. Ziqiang Tong, NXP Semiconductors, Germany
Prof. Feng Xu, Fudan Univeristy, China

Organizing Committee Chair:

Dr. Xichao Dong, Beijing Institute of Technology, China

Organizing Committee Co-Chairs:

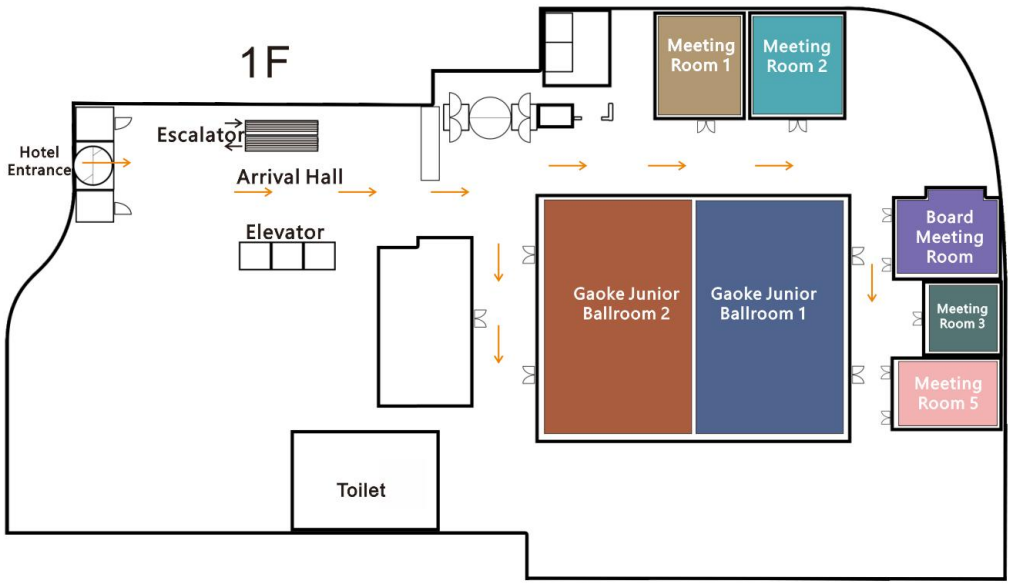
Mr. Paulo Lopes, IET China, Portugal
Prof. Liang Li, Aerospace Information Research Institute, Chinese Academy of Sciences, China
Dr. Zheng Lu, Institute of Remote Sensing Satellites, China Academy of Space Technology, China
Dr. Yunkai Deng, Beijing Institute of Technology, China

Organizing Committee:

Mrs. Chu Deng, Beijing Institute of Technology, China
Mrs. Jingxin Fu, Beijing Institute of Technology, China
Mrs. Feifei Han, Beijing Institute of Technology, China
Mrs. Dandan Liu, Beijing Institute of Technology, China
Mrs. Tingting Liu, IET China, China
Prof. Dewu Wang, The No. 23 Institute of the Second Academy of China Aerospace Science & Industry Corporation, China
Mrs. Yizhi Wang, Beijing Institute of Technology, China
Mrs. Fang Wei, Beijing Institute of Technology, China
Prof. Jianming Xia, The 38Th Research Institute of China Electronics Technology Group Corporation, China
Prof. Linghao Xia, The 14th Research Institute of China Electronics Technology Group Corporation, China
Mrs. Mingdi Xie, Beijing Institute of Technology, China
Mr. Liyang Zhang, Beijing Institute of Technology, China
Mrs. Xinyin Zhang, Beijing Institute of Technology Chongqing Innovation Center, China
Dr. Shichao Zhong, Beijing Institute of Technology, China
Prof. Yiming Zhou, Institute of Remote Sensing Satellites, China Academy of Space Technology, China

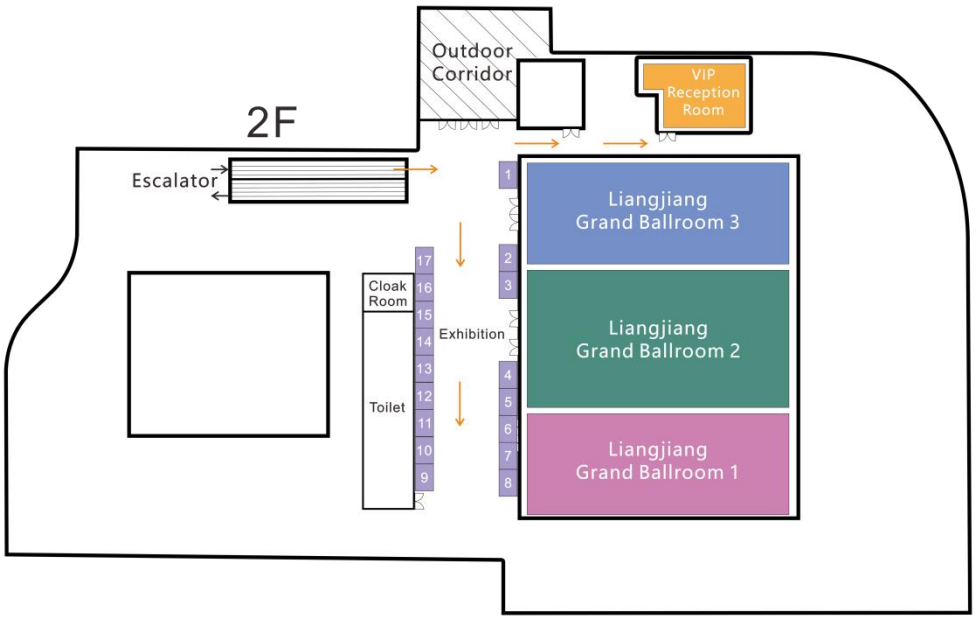
Layout of Conference Venue

1st Floor:



Hotel Lobby/酒店大堂: 1st Floor of Hotel
Gaoke Junior Ballroon1/高科宴会厅 1： 1st Floor of Hotel
Gaoke Junior Ballroon2/高科宴会厅 2： 1st Floor of Hotel
Meeting Room1/金星会议室： 1st Floor of Hotel
Meeting Room2/麒麟会议室： 1st Floor of Hotel
Meeting Room3/星汇会议室： 1st Floor of Hotel
Meeting Room5/海王会议室： 1st Floor of Hotel
Function Room Foyer/一层走廊： 1st Floor of Hotel

2nd Floor:



Liangjiang Grand Ballroom1/两江大宴会厅 1：2nd Floor of Hotel
Liangjiang Grand Ballroom2/两江大宴会厅 2：2nd Floor of Hotel
Liangjiang Grand Ballroom3/两江大宴会厅 3：2nd Floor of Hotel
VIP Reception Room/贵宾接待厅：2nd Floor of Hotel
Banquet Foyer /二层走廊：2nd Floor of Hotel
Kitchen Craft/厨艺西餐厅：32th Floor of Hotel
PANA/帕娜风味餐厅：33th Floor of Hotel

Schedule at a Glance

Date	Time	Content		Place
December 3 Sunday	08:00-22:00	Registration		Hotel Lobby
	17:30	Dinner		PANA (33F）
Date	**Time**	**Content**		**Place**
December 4 Monday	08: 30-12: 30	Registration		Hotel Lobby
	08: 30-09: 00	Opening Ceremony		Liangjiang Grand Ballroom
	09: 00-09: 30	Keynote Speech 1	Prof. Ramon Hanssen, QA/QC for Satellite Radar Interferometry: A New Perspective	
	09: 30-10: 00	Keynote Speech 2	Prof. Roberto Orosei, Seeing the Invisible: Radar Experiments in Space Missions for the Exploration of the Solar System	
	10: 00-10: 30	Keynote Speech 3	Prof. Dan Liu, Research on Radar Detection Technology of Astronomical Objects	
	10: 30-11: 00	Tea Break		Banquet Foyer
	11: 00-11: 30	Keynote Speech 4	Prof. Xiaopeng Yang, Penetrating Detection and Information Perception for Urban Buildings	Liangjiang Grand Ballroom
	11: 30-12: 00	Keynote Speech 5	Prof. Dr. Markus Gardill, Neural Networks in Automotive Radar Signal Processing	
	12: 00-13: 30	Lunch		Gaoke Junior Ballroom(1F) / Kitchen Craft (32F)
	13: 30-15: 30	Oral Session 1	Machine Learning and Optimization for Radar Signal Processing	Liangjiang Grand Ballroom 3
		Oral Session 2	Microwave Remote Sensing of Marine Target Monitoring	VIP Reception Room
		Oral Session 3	Radar Target Detection and Recognition in the Era of AI	Meeting Room 1
		Oral Session 4	Radar Imaging Jamming and Anti-Jamming Technology	Meeting Room 2

		Oral Session 5	Ground Penetrating Radar	Meeting Room 3
		Oral Session 6	Automotive Radar	Meeting Room 5
	15: 30-16: 00	Tea Break		Banquet Foyer
	15: 30-16: 30	Poster Session 1	Radar Signal and Data Processing	Liangjiang Grand Ballroom1+2
		Poster Session 2	SAR and ISAR	
		Poster Session 3	Emerging Technology	
		Poster Session 4	Target and Environment Characteristics	
	16: 30-18: 30	Oral Session 7	Clutter Suppression/Classification and Target Detection for Complex Scenarios	Liangjiang Grand Ballroom3
		Oral Session 8	Advances in Multi-temporal InSAR Algorithms and Applications for the Urban Environment	VIP Reception Room
		Oral Session 9	Electromagnetic Scattering Theory and Applications of Polarimetric Radar Remote Sensing	Meeting Room 1
		Oral Session 10	Passive Radar Technology	Meeting Room 2
		Oral Session 11	Weather Radar and its Application	Meeting Room 3
		Oral Session 12	Planetary Radar	Meeting Room 5
	18:30-19:30	Dinner		Kitchen Craft (32F) / PANA (33F)
	19: 30-22: 00	Tutorial 1	Prof. Andrea Monti-Guarnieri, From LEO to GEO: Options for SAR Remote Sensing with Short Revisit	Meeting Room1
		Tutorial 2	Prof. Maksim BANO, EM Waves and GPR Method, Processing and 1D Modeling	Meeting Room 2
		Tutorial 3	Prof. Andrea Buono, Synthetic Aperture Radar Fundamentals and Advanced Technologies	Meeting Room 5
	08: 00 - 18: 00	Exhibition Time		Banquet Foyer

Date	Time	Content		Place
December 5 Tuesday	08: 00 - 10: 00	Oral Session 13	Advanced ISAR Signal Processing and Information Acquisition	Liangjiang Grand Ballroom3
		Oral Session 14	Exploiting Diversities in Array Radar Signal Processing	Gaoke Junior Ballroom 1
		Oral Session 15	Intelligent and Real-time Understanding and Processing for Earth-Observation Remote Sensing Tasks	Meeting Room 1
		Oral Session 16	MIMO Radars: Systems and Signal Processing	Meeting Room 2
		Oral Session 17	Intelligent Optical Signal Processing	Meeting Room 3
		Oral Session 18	Advanced Radar Target Tracking and Recognition Algorithm	Meeting Room 5
	10: 00 - 10: 15	Tea Break		Banquet Foyer
	10: 15 - 12: 15	Oral Session 19	Spaceborne SAR System and Signal Processing	Liangjiang Grand Ballroom 3
		Oral Session 20	Surface Deformation Monitoring Systems and Signal Processing	VIP Reception Room
		Oral Session 21	Advanced SAR Imaging and Target Recognition Using Intelligent Technology	Meeting Room 1
		Oral Session 22	LuTan-1： Processing and Applications	Meeting Room 2
		Oral Session 23	Through the Medium Sensing and Applications	Meeting Room 3
		Oral Session 24	Integrated Sensing and Communication	Meeting Room 5
	12: 15 - 13: 00	Lunch		Kitchen Craft (32F) / PANA (33F)
	13: 00-15: 00	Oral Session 25	Aerial Migration Observation Technologies and Applications	VIP Reception Room
		Oral Session 26	Radar Imaging, Processing and Image Interpretation with Knowledge Guided Deep Learning Approaches	Gaoke Junior Ballroon 1
		Oral Session 27	Bistatic/Multitatic Synthetic Aperture Radar	Meeting Room 1
		Oral Session 28	Advanced Radar Application: Geohazard Monitoring Technology	Meeting Room 2

		Oral Session 29	From LEO SAR to GEO SAR: System and Application	Meeting Room 3
		Oral Session 30	Antenna and RF Component	Meeting Room 5
	15: 00-15: 30	Tea Break		Banquet Foyer
	15: 00-16: 00	Poster Session 5	Radar Systems	Gaoke Junior Ballroom 2
		Poster Session 6	Advanced Signal Processing Algorithms	
		Poster Session 7	Advanced Radar Application	
	16: 00-18: 00	Keynote Speech 6	Prof. Jiaguo Lu, Key Technologies, Equipment, and Applications of Spaceborne Wide Area Reconnaissance and Surveillance Radar	Liangjiang Grand Ballroom
		Keynote Speech 7	Prof. Ercan Engin KURUOGLU, Levy-Stable Distribution Based Models for Speckle on Remote Sensing Images	
		Keynote Speech 8	Prof. Motoyuki Sato, The Role of Radar Technology for Disaster Mitigation	
		Keynote Speech 9	Assoc. Prof. Yuanhao Li, Multi-scale Deformation Measurement by Radars for Geological Disaster Sensing	
	19: 00	Award Banquet		Liangjiang Grand Ballroom
	08: 00 - 18: 00	Exhibition Time		Banquet Foyer

Oral Sessions Schedule at a Glance

13: 30 – 15: 30, December 4						
Sessions	**Session 1**	**Session 2**	**Session 3**	**Session 4**	**Session 5**	**Session 6**
Place&Time	**Liangjiang Grand Ballroom 3**	**VIP Reception Room**	**Meeting Room 1**	**Meeting Room 2**	**Meeting Room 3**	**Meeting Room 5**
13: 30	A0354	Zongxu Pan	Siwei Chen	Jiadong Wang	Deshan Feng	Yilong Lu
13: 45	B0548	Xue Jiang	Lei Zuo	Shuyuan Yang	Xuan Feng	C0817
14: 00	C0597	Lamei Zhang	C0092	Daiyin Zhu	C0353	A609
14: 15	C0718	C0989	C0107	Yulin Huang	C0385	C0026
14: 30	C0720	C0990	C0202	Pingping Lu	C0603	C0490
14: 45	C0745	E0503	C0251	C0477	G195	C0598
15: 00	D650	E0877	C0428	C0483	G824	C0706
15: 15	E0546	F0268	Xiaolong Chen	D0916		C0924
16: 30 – 18: 30, December 4						
Sessions	**Session 7**	**Session 8**	**Session 9**	**Session 10**	**Session 11**	**Session 12**
Place&Time	**Liangjiang Grand Ballroom 3**	**VIP Reception Room**	**Meeting Room 1**	**Meeting Room 2**	**Meeting Room 3**	**Meeting Room 5**
16: 30	Yong Yang	Jicang Wu	D0627	Shuanggen Jin	Kun Zhao	Roberto Orosei
16: 45	Yongchan Gao	Mi Jiang	D0773	Jean-Michel Friedt	Songhua Wu	Jinhai Zhang
17: 00	Weijian Liu	Yuxiao Qin	A0782	XianRong Wan	Jinming Ge	Yan Su
17: 15	Jian Xue	A0601	D0097	Jun Wang	Weidong Hu	Yi Xu
17: 30	C0047	A0637	D0523	Lu Sun	Jianbing Li	Chunyu Ding
17: 45	C0070	A0960	D0535	Jian Gong	Hai Li	C0977
18: 00	C0294	D0805	E0779	A0812	Xichao Dong	G611
18: 15	C0401	D0847	E0922	C0389	Qiangyu Zeng	G772

8: 00 – 10: 00, December 5						
Sessions	**Session 13**	**Session 14**	**Session 15**	**Session 16**	**Session 17**	**Session 18**
Place&Time	**Liangjiang Grand Ballroom 3**	**Gaoke Junior Ballroom 1**	**Meeting Room 1**	**Meeting Room 2**	**Meeting Room 3**	**Meeting Room 5**
8: 00	Yong Wang	Lei Huang	Feng Xu	A0238	Yitang Dai	Wei Yi
8: 15	Xueru Bai	Guolong Cui	Gui Gao	A0630	Bin Wang	Jibin Zheng
8: 30	Shuanghui Zhang	Zhiguo Shi	Zenghui Zhang	A0767	C0228	D0338
8: 45	Lei Liu	Junli Liang	Shuang Wang	A0967	C0347	C0384
9: 00	C0665	Bo Tang	C0130	B0716	C0914	C0440
9: 15	D0728	Lan Lan	C0361	C0612	D0459	C0599
9: 30	D0778	A0479	C0448	C0894	F0078	C0729
9: 45	D906	C0274	C0981		F0160	C0984
10: 15 – 12: 15, December 5						
Sessions	**Session 19**	**Session 20**	**Session 21**	**Session 22**	**Session 23**	**Session 24**
Place&Time	**Liangjiang Grand Ballroom 3**	**VIP Reception Room**	**Meeting Room 1**	**Meeting Room 2**	**Meeting Room 3**	**Meeting Room 5**
10: 15	Yong Wang	Qilei Zhang	Zhiqi Gao	G669	Buge Liang	C0158
10: 30	Jie Chen	D0212	Wensheng Chang	D0910	Guolong Cui	C0375
10: 45	Hui Bi	A802	Zhen Dong	D0987	Xiaolu Zeng	F0190
11: 00	Bing Han	C0810	Xiangguang Leng	A0657	A0103	F0288
11: 15	Yan Wang	D0257	C0019	C0878	C0498	F0469
11: 30	Junjun Yin	D0398	C0108	D0829	C0664	F0639
11: 45	Lei Liu	F0838	C0431	D0947	G866	F0913
12: 00	Aifang Liu	D0252	D0644	G064	G879	

13: 00 – 15: 00, December 5						
Sessions	**Session 25**	**Session 26**	**Session 27**	**Session 28**	**Session 29**	**Session 30**
Place&Time	**VIP Reception Room**	**Gaoke Junior Ballroom 1**	**Meeting Room 1**	**Meeting Room 2**	**Meeting Room 3**	**Meeting Room 5**
13: 00	C0081	Zai Yang	D151	Weixian Tan	F0021	B0935
13: 15	C0488	Lan Du	D0833	Rui Zhang	A0804	B0900
13: 30	C0502	Xiaolan Qiu	A0290	Weiming Tian	D0925	B0110
13: 45	G066	Xian Sun	A0777	A0372	C0005	A0012
14: 00	G229	Julien Le Kernec	C0297	A0744	D0207	B0131
14: 15	G331	C0456	D0362	D0822	D0696	B0239
14: 30	G360	E0690	D0421	G457	F797	B0370
14: 45	G495	D0366		G480		B0521

Poster Sessions Schedule at a Glance

Time: 15: 30 - 16: 30, December 4, 2023					Place: Liangjiang Grand Ballroom 1+2				
Session 1: Radar Signal and Data Processing									
C0003	C0018	C0029	C0033	C0036	C0053	C0056	C0080	C0087	C0096
C0105	C0123	C0134	C0137	C0138	C0139	C0140	C0145	C0146	C0147
C0163	C0166	C0167	C0172	C0191	C0196	C0197	C0208	C0209	C0210
C0211	C0219	C0224	C0225	C0236	C0246	C0254	C0255	C0265	C0271
C0272	C0277	C0282	C0300	C0309	C0318	C0319	C0323	C0327	C0337
C0342	C0346	C0368	C0369	C0371	C0376	C0382	C0392	C0396	C0405
C0426	C0429	C0433	C0451	C0452	C0458	C0464	C0466	C0467	C0500
C0509	C0510	C0524	C0525	C0528	C0534	C0540	C0542	C0544	C0551
C0555	C0561	C0563	C0569	C0583	C0587	C0594	C0595	C0600	C0614
C0617	C0628	C0636	C0649	C0651	C0658	C0659	C0662	C0671	C0688
C0689	C0719	C0725	C0733	C0735	C0736	C0737	C0754	C0756	C0765
C0770	C0774	C0780	C0781	C0784	C0791	C0818	C0834	C0841	C0843
C0848	C0856	C0864	C0867	C0870	C0875	C0911	C0915	C0921	C0954
C0962	C0980	C0993							
Session 2: SAR and ISAR									
D0009	D0011	D0013	D0037	D0055	D0091	D0094	D0109	D0122	D014
D0142	D0143	D0150	D0156	D0165	D0199	D020	D0218	D0249	D025
D0266	D0305	D0311	D0313	D0314	D0315	D0324	D0325	D0326	D0341
D0352	D0393	D0397	D0400	D0406	D0411	D0423	D043	D0430	D0441
D0449	D0453	D0455	D0460	D0461	D0491	D0496	D0504	D0507	D0508
D0537	D0567	D0568	D0570	D0571	D0582	D0585	D0588	D0590	D0593
D0626	D0634	D0640	D0643	D0648	D0668	D0674	D0680	D0691	D0693
D0708	D0709	D0711	D0717	D0721	D0727	D0731	D0732	D0734	D0739
D0740	D0748	D0760	D0763	D0769	D0775	D0789	D0790	D0803	D0806
D0808	D0809	D0816	D0819	D0831	D0850	D0855	D0860	D0862	D0892
D0897	D0898	D0899	D0901	D0905	D0909	D0926	D0927	D0928	D0929
D0936	D0949	D0974	D0988	D0994	D0998	D216	D269	D275	D312
D322	D348	D378	D432	D434	D450	D468	D474	D517	D574
D654	D667	D699	D835	D963					

Session 3: Emerging Technology									
C0008	C0079	C0088	C0095	C0200	C0241	C0278	C0303	C0306	C0330
C0334	C0335	C0358	C0409	C0439	C0445	C0481	C0493	C0514	C0527
C0536	C0552	C0584	C0635	C0695	C0814	C0826	C0828	C0853	C0934
C0951	C0991	F0030	F0061	F0240	F0299	F0304	F0359	F0388	F0425
F0470	F0485	F0520	F0532	F0550	F0557	F0652	F0653	F0684	F0703
F0741	F0794	F0811	F0830	F0869	F0883	F0917	F0992		

Session 4: Target and Environment Characteristics									
C0016	C0024	C0051	C0052	C0090	C0148	C0250	C0267	C0351	C0436
C0484	C0501	C0511	C0512	C0533	C0591	C0596	C0610	C0625	C0629
C0633	C0645	C0655	C0738	C0757	C0821	C0823	C0825	C0836	C0839
C0846	C0863	C0874	C0882	C0885	C0955	E0028	E0046	E0054	E0059
E0135	E0149	E0155	E0157	E0162	E0273	E0415	E0422	E0438	E0547
E0573	E0592	E0606	E0679	E0705	E0768	E0854	E0907	E0932	E0979
E0997									

Time: 15: 00 - 16: 00, December 5, 2023 Place: Gaoke Junior Ballroom 2									
Session 5: Radar Systems									
A0039	A0067	A0101	A0102	A0121	A0124	A0192	A0198	A0205	A0223
A0231	A0253	A0259	A0285	A0333	A0363	A0364	A0365	A0373	A0377
A0408	A0412	A0437	A0443	A0478	A0505	A0515	A0518	A0519	A0543
A0607	A0663	A0678	A069	A0715	A0746	A0751	A0783	A0792	A0815
A0842	A0881	A0886	A0888	A0889	A0933	A0950	A0956	A0964	A0969
A0973	A0975	A0986	A0995	A206	A893	A959	C0010	C0041	C0060
C0153	C0164	C0201	C0263	C0292	C0295	C0308	C0402	C0442	C0472
C0487	C0497	C0516	C0566	C0613	C0615	C0632	C0698	C0726	C0786
C0798	C0813	C0849							
Session 6: Advanced Signal Processing Algorithms									
C0001	C0002	C0031	C0040	C0044	C0045	C0058	C0082	C0161	C0193
C0194	C0248	C0296	C0301	C0317	C0321	C0336	C0343	C0344	C0356
C0374	C0387	C0391	C0424	C0427	C0462	C0471	C0506	C0513	C0529
C0531	C0549	C0553	C0556	C0558	C0562	C0572	C0586	C0616	C0624
C0631	C0673	C0682	C0683	C0685	C0686	C0687	C0704	C0723	C0749
C0755	C0761	C0801	C0844	C0852	C0859	C0873	C0887	C0896	C0930
C0953	C0966	C0970	C0985	C1000					
Session 7: Advanced Radar Application									
B0136	B0203	B0243	B0256	B0287	B0339	B0340	B0383	B0454	B0482
B0538	B0605	B0799	B0871	B795	B820	C0038	C0062	C0084	C0100
C0141	C0189	C0217	C0345	C0390	C0395	C0545	C0589	C0724	C0851
C0923	C0982	G015	G027	G106	G125	G235	G264	G307	G310
G320	G329	G355	G367	G379	G399	G414	G420	G475	G476
G489	G499	G559	G564	G565	G670	G681	G722	G742	G750
G758	G762	G764	G800	G880	G895	G919	G920	G931	G958
G968	G996	B057	D0006						

Keynote Speeches

Title: QA/QC for Satellite Radar Interferometry: A New Perspective
Speaker: Prof. Ramon Hanssen
Time: 09: 00-09: 30, December 4, 2023
Place: Liangjiang Grand Ballroom

Abstract: While satellite missions, data services, data availability, and technical innovations continue to thrive, the field of InSAR faces significant challenges in quality assurance and quality control (QA/QC). In fact, there Is currently no consensus on how to assess and control the quality, reliability, and consistency of InSAR information products (IIPs). The terminology of robustness, reproducibility, reliability, and integrity must be introduced to the field of InSAR, though they remain poorly defined at present.This report is on the concept of Quality Assurance and Quality Control (QA/QC) for both "application-agnostic" InSAR information products, or double-A and "advanced application-aligned products," or triple-A InSAR information products. We will delve into the critical aspect of parameterization choices and scrutinize the prevailing trend of delivering map-based products. In addition to the traditional quality metrics like coherence, we will introduce innovative concepts such as loss-of-lock, robustness, reliability, and integrity. Furthermore, we will demonstrate a remarkable capability: the potential to derive three-dimensional displacement estimates from just two satellite-viewing geometries. This underlines the versatility and depth of information that can be gleaned from InSAR data, broadening its utility beyond conventional expectations.

Biography: Ramon Hanssen (MSc 1993; PhD 2001, cum laude) is Antoni van Leeuwenhoek professor in Geodesy and Earth Observation at Delft University of Technology. His work centres around fundamental and applied problems in geodesy and satellite earth observation. In particular, he pioneered the geodetic use of synthetic aperture radar interferometry, as a high-precision technique to measure deformations of the earth's surface. His expertise domain should be placed in between the fields of electrical engineering and signal processing on one side, and geophysical applications on the other. The geodetic approach implies a focus on parameter estimation problems, quality control and error propagation, and testing theory. His interest ranges from deformation signals on wide scales, e.g., related to global warming, sea level variability and subsidence, to fine scales, such as the deformation of critical civil infrastructure. He did pioneering work on atmospheric water vapor mapping using radar interferometry, published in Science in 1999. In 2003 he received the Bomford Prize from the International Association of Geodesy. In 2007, he was nominated for an Antoni van Leeuwenhoek-chair. He is author of two patents, and his monograph on radar interferometry is highly cited in the domain, with nearly 3800 citations in 2023. In 2007 he founded a spin-off company, now known as SkyGeo, for the operational geodetic monitoring of assets. Since 2012, he is visiting professor at Wuhan University, China. With 450+ publications and more than 10.000 citations Hanssen is a leading expert in his domain.

Title: Seeing the Invisible: Radar Experiments in Space Missions for the Exploration of the Solar System
Speaker: Prof. Roberto Orosei
Time: 09: 30-10: 00, December 4, 2023
Place: Liangjiang Grand Ballroom

Abstract: Electromagnetic waves in the radio and microwave frequency bands can propagate through media that are opaque to visible and infrared light. The very low natural emission at these frequencies makes it also possible to use active sensors illuminating Solar System bodies hundreds or thousands of kilometers away, and to receive echoes carrying information on their topography, morphology, structure and composition. Radar sensors have thus been flown on deep space missions since the seventies of the last century, first to the Moon, then to Venus, Mars, the Saturnian system and to the nucleus of a comet. On the Moon, radar sounders operating at MHz frequencies penetrated below the surface and mapped the thickness of lunar Maria, while polarized SAR experiments studied the interior of permanently-shadowed craters near the poles searching for ground ice. An imaging radar and altimeter mapped the topography of Venus, shrouded in perennial clouds, and yielded the first views of its surface morphology. On Mars, both orbiting and rover-mounted ground penetrating radars provided unique insight on the thickness and composition of polar caps, on the presence of ground ice at low latitudes, and on the stratigraphy of lava flows and volcanic ash deposits. A multi-mode radar was used to study the surface geology and hydrology of perennially haze-shrouded Titan, Saturn's largest moon and the only satellite in the Solar System possessing an atmosphere. A tomographic radar was landed on the nucleus of comet 67P/Churyumov-Gerasimenko, providing information on its density and composition. Interpretation of data from planetary radars required the development of new analysis methods and the use of electromagnetic propagation simulations, as ground truth for data calibration and validation is not available. As this new methodology is developing, radar sounders are on their way to study the interior of the Galilean moons of Jupiter, and more experiments of this type are envisioned for the continuing study of planets, satellites and asteroids. Radar experiments are thus expected to continue to be part of the scientific payload of future missions for the exploration of Solar System objects in the foreseeable future.

Biography: Roberto Orosei was born in Reggio Emilia, Italy. He studied at the University of Bologna and received a Ph.D. degree from the University of Rome "La Sapienza". After spending two years as a Research Fellow at the European Space Research and Technology Centre in Noordwijk, the Netherlands, he moved to the Institute for Space Astrophysics in Rome, where he participated in the design and realization of instruments for solar system exploration missions. He is a science team member of space experiments for the Rosetta and Jupiter Icy Moons Explorer missions of the European Space Agency, and for NASA's Cassini, Mars Reconnaissance Orbiter, Dawn and Juno probes. He is the principal investigator of the MARSIS radar on board ESA's Mars Express spacecraft, which provided evidence of the presence of liquid water beneath the South polar cap of Mars. He currently works at the Institute for Radioastronomy in Bologna and teaches a course of astrobiology at the University of Bologna.

Title: Research on Radar Detection Technology of Astronomical Objects
Speaker: Prof. Dan Liu
Time: 10: 00-10: 30, December 4, 2023
Place: Liangjiang Grand Ballroom

Abstract: Optical detection is the most common way to observe astronomical objects, while radar detection can directly obtain distance and velocity information of the objects as beneficial supplement to optical detection. Especially, with the development of radar technology, the detection sensitivity is becoming higher and higher, thus make it possible to actively detect astronomical objects with radar within the solar system. By analyzing the electromagnetic characteristics and motion attitude modulation laws of the astronomical objects within the detection spectrum of radar, this article describes the information features that can be obtained in astronomical object detection activities with radar, as well as some difficulties in such detection, and provides some possible development ideas.

Biography: Chief domain expert of Institute No.23 of the Second Academy of China Aerospace Science and Industry Corporation Limited (CASIC), professor, doctoral supervisor, fellow of the Chinese Institute of Electronics (CIE), chief designer of multiple radar products, beneficiary of the State Council Special Allowance, winner of the "National March 8th Red-banner Individual", the "China Youth Science and Technology Award", the "China Space Foundation Award", etc.

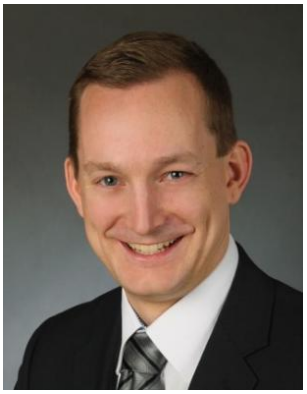
Title: Penetrating Detection and Information Perception for Urban Buildings
Speaker: Prof. Xiaopeng Yang
Time: 11: 00-11: 30, December 4, 2023
Place: Liangjiang Grand Ballroom

Abstract: With the development of urbanization and human activities, the urban building environment is becoming more and more complex. The target detection and information perception of urban building sheltered space is important for civil and other applications. The traditional methods for detection and localization of targets cannot work effectively because of the obstruction and the fading and multiple paths caused by the buildings. Therefore, the ultra-wideband through-the-wall radar is utilized for the penetrating detection and information perception of urban building. In this talk, the building structure reconstruction, the indoor target imaging and the human behavior recognition are mainly investigated and discussed. Firstly, the building structure is reconstructed by the joint estimation of wall and corners based on the attribute scattering center model with semantics constraints. In addition, the generative adversarial networks are explored to improve the resolution of target image by the fusion of image information from radar and camera. Finally, a lightweight multi-scale neural network is designed to extract macro and micro-Doppler features for indoor human activity recognition. These works will improve the performance of target detection and information perception of urban buildings, which will provide technical and information supports for the development, construction and security of city.

Biography: Xiaopeng Yang is currently a full Professor with the School of Information and Electronics, Beijing Institute of Technology (BIT), China. He is a fellow of Chinese Institute of Electronics (CIE), and senior member of IEEE. He received B.E. and M.E. degrees from Xidian University, and Ph.D. degree from Tohoku University. He was a Post-Doctoral Research Fellow with Tohoku University, Japan and a Research Associate with Syracuse University, USA, from 2007to 2010. Since 2010, he has been working with BIT. His current research interests include radar signal processing, through-the-wall radar and ground penetrating radar. He has published more than 60 Journal papers and 100 Conference papers, granted 18 Chinese patents, and more than 10 invited talks in academic conferences. He is the BOG of IEEE AESS, member of IEEE AESS Radar System Panels, BOG of Chinese Radar Industry Association, the deputy director of CIE Radar society, the General Chair of IET International Radar Conference 2020 and 2023, and TPC Chair of IEEE ICSIDP 2019. He has been awarded the outstanding scientific researcher of CIE, Journal paper award in Chinese Electronics, paper awards of IEEE and IET International Conference and National Radar Conference, etc.

Title: Neural Networks in Automotive Radar Signal Processing
Speaker: Prof. Dr. Markus Gardill
Time: 11: 30-12: 00, December 4, 2023
Place: Liangjiang Grand Ballroom

Abstract: The high-volume automotive market, focusing on advanced driver assistance systems and highly automated driving applications, pushed the development of, fully int, egrated and intelligent radar systems over the last decade. The current development of sensor hardware can be interpreted as a gradual evolution from previous generations, focusing, e.g., on advanced fully int, egrated ra, dar system, s on a chi, p, the applic, ation of waveguide antennas, netwo, rked radar sensors, and , an increased level of waveform flexibility. However, with the recent advances in machine learning, particularly neural networks, and deep learning, revolutionary concepts are proposed for automotive radar signal processing. Ranging from interference detection and mitigation applied to the raw data at the very beginning of the signal processing chain, over intermediate processing steps such as detection, direction-of-arrival estimation, and r, adar image enhancement, up to high-level processing such as object classification and semantic segmentation of the environment, neural networks show impressive performance when applied in automotive radar. In this talk, , the key concepts of applying neural networks throughout the whole signal-processing chain of automotive radar systems are reviewed and state-of-the-art ideas are discussed.



Biography: Markus Gardill is a professor and head of the Chair of Electronic Systems and Sensors and the Brandenburg University of Technology Cottbus–Senftenberg, Germany.He received the Dipl.-Ing. and Dr.-Ing. degree in systems of information and multimedia technology/electrical engineering from the Friedrich-Alexander-University Erlangen-Nürnberg, Germany, in 2010 and 2015, respectively, where he was a research assistant, teaching fellow, and later head of the team for radio communication technology.Between 2015 and 2020 he was R&D engineer and research cluster owner for optical and imaging metrology systems at Robert Bosch GmbH and later joined InnoSenT GmbH.Here he was head of the group radar signal processing & tracking, developing together with his team new generations of automotive radar sensors for advanced driver assistance systems and autonomous driving. From 2020 to 2021 he was associate professor for satellite communication systems at the Julius Maximilian University of Würzburg. His main research interest includes radar and communication systems, antenna (array) design, and signal processing algorithms. His particular interest is space-time processing, such as e.g., beamforming and direction-of-arrival estimation, together with cognitive and adaptive systems. Markus Gardill is a member of the IEEE Microwave Theory and Techniques Society (IEEE MTT-S).He served as co-chair of the IEEE MTT-S Technical Committee Digital Signal Processing (MTT-9), regularly acts as a reviewer and TPRC member for several journals and conferences, currently serves as co-chair of the Technical Committee on Aerospace Systems (MTT-29) and will serve as its chair from 2024 on. He was associate editor of the Transactions on Microwave Theory and Techniques from 2020-2022 and is co-chair of the IEEE Future Direction Initiative Low-Earth Orbit Satellite Systems (LEO SatS). He was a Distinguished Microwave Lecturer (DML) for the DML term 2018-2020 with a presentation on signal processing and system aspects of automotive radar systems.

Title: Key Technologies, Equipment, and Applications of Spaceborne Wide Area Reconnaissance and Surveillance Radar
Speaker: Prof. Jiaguo Lu
Time:16: 00-16: 30, December 5, 2023
Place: Liangjiang Grand Ballroom

Abstract: Wide-area reconnaissance and surveillance radar is a key means for sea, air and land target reconnaissance and surveillance, ecology and disasters monitoring in all day time and all-weather conditions. Due to the complexity of target (landform, vegetation and time sensitivity property), environment (electromagnetic/clutter environment, platform resources) and radar system (beam/waveform singleness, analog/RF link lengthy), wide-area reconnaissance and surveillance radars face the challenges of "high efficiency, multifunctional" reconnaissance and surveillance tasks for diverse targets (point, line, surface, volume, time sensitive and masking), as well as the problem of "high-precision, quantitative" information interpretation and inversion of geophysical quantities in the era of big data. This talk analyzes and studies key technologies of SAR/MTI simultaneous multitasking and efficient operation, high-efficiency broadband active phased array system, and high-precision geophysical quantity interpretation and inversion; On the basis of analyzing the development of commercial SAR satellites in China, this talk focuses on the system composition and engineering development of the first commercial SAR satellite in China, " HISEA-1"; In order to fulfill major application requirement, enhance emergency response capabilities and social governance levels, and derive the entire application ecosystem, this talk will analyze the SAR data processing and SAR data services situation.

Biography: Jiaguo Lu, Researcher, has been long engaged in the field of wide-area reconnaissance and surveillance radar and guidance radar. He has served as the deputy general commander of the "Remote Sensing 33" satellite and the deputy general designer of electronics information system in space. He has taken charge of and completed more than 10 equipment research projects and engineering development, including active phased array systems for "Gaofen 10" satellite and "Remote Sensing 33" satellite, three-side array radar in space. He has been focusing on the two major aspects of polarization and frequency, proposed the "three matching" theoretical model and design method for active array systems, revealed the scattering characteristics of target multipolarity/circular polarization, and led a team breaking through the bottleneck technology for the next generation of wide-area reconnaissance and surveillance radar and guidance radar. The images from the developed civil remote sensing satellite such as "Haisi-1" have been widely used at home and abroad, serving the "the Belt and Road Initiative" and global emergency monitoring, and he made important contributions to promoting high-resolution, multipolar, efficient and wide area reconnaissance and surveillance in the aerospace field. He has been granted a Second Prize of National Science and Technology Progress Award (ranking 1), five First Prize of ministerial level awards (ranking 1, 1, 1, 2, 4); He has published three monographs in Chinese and in English, 41 authorized invention patents (including 3 international patents), and more than 110 academic papers.

Title:Levy-stable Distribution Based Models for Speckle on Remote Sensing Images
Speaker: Prof. Ercan Engin KURUOGLU
Time: 16: 30-17: 00, December 5, 2023
Place: Liangjiang Grand Ballroom

Abstract: Synthetic aperture radar is a powerful remote-sensing technology widely adopted for airborne or spaceborne geo-sensing and surveillance applications due to its significant advantages of high azimuthal resolution and weather-independent operation. A significant problem effecting performance in segmentation and feature or target detection in SAR images is the presence of speckle noise due to the remote sensing image generation mechanism. Although various statistical models have been proposed for speckle, the accurate characterization of heterogeneous SAR image data such as urban scenes remains an obstinate problem that awaits attention. Amongst the versatile statistical models established for SAR images, generalizing stable distribution to the complex isotropic scenario attracts attention due to theoretical justification of these models motivated by wave propagation dynamics and Gnedenko and Kolmogorov's generalization of the central limit theorem under the removal of finite variance assumption. Yet the lack of analytical representation for the model restricted its further development. We provide a derivation and proof justifying the use of the complex-isotropic models belonging to the Levy-stable family. We describe the existing generalized Rayleigh model which is now one of the state of the art models and present two new distributions which take care of scenarios with dominant reflectors and asymmetric reflections. For the purposes of parameter estimation, we extend the method of moments to beyond power moments into algebraic moments and propose closed form solutions. We believe that the potentials of the proposed models and estimation methods go beyond SAR imaging to ultrasound imaging and multipath fading in communications.

Biography: Ercan E. Kuruoğlu received MPhil and PhD degrees in information engineering from the University of Cambridge, United Kingdom, in 1995 and 1998, respectively. In 1998, he joined Xerox Research Center Europe, Cambridge. He was an ERCIM fellow in 2000 with INRIA-Sophia Antipolis, France. In 2002, he joined ISTI-CNR, Pisa, Italy where he became a Chief Scientist in 2020. Currently, he is a Full Professor at Tsinghua-Berkeley Shenzhen Institute since March 2022. He served as an Associate Editor for the IEEE Transactions on Signal Processing and IEEE Transactions on Image Processing. He was the Editor in Chief of Digital Signal Processing: A Review Journal between 2011-2021. He is currently co-Editor-in-Chief of Journal of the Franklin Institute, Data Science and Signal Processing Section. He acted as a Technical co-Chair for EUSIPCO 2006 and a Tutorials co-Chair of ICASSP 2014. He is a member of the IEEE Technical Committees (TC) on Machine Learning for Signal Processing, on Signal Processing Theory and Methods, and on Image, Video and Multidimensional Signal Processing and EURASIP TACs on Machine Learning for Signal and Data Analytics. He is also member of the IEEE Data Collections and Challenges Committee. He was a member of IEEE Ethics Committee in 2011. He was a plenary speaker at DAC 2007, ISSPA 2010, IEEE SIU 2017, Entropy 2018, MIIS 2020 and tutorial speaker at IEEE ICSPCC 2012. He was an Alexander von Humboldt Experienced Research Fellow in the Max Planck Institute for Molecular Genetics in 2013-2015. His research interests are in the areas of statistical signal and image processing, Bayesian machine learning and information theory with applications in remote sensing, environmental sciences, telecommunications and computational biology.

Title: The Role of Radar Technology for Disaster Mitigation
Speaker: Prof. Motoyuki Sato
Time: 17: 00-17: 30, December 5, 2023
Place: Liangjiang Grand Ballroom

Abstract: Natural disasters can be caused by earthquake, heavy rain, and other reasons. Most of them are very hard to prevent or predict, however, we can make the effort to mitigate the disaster. Radar technology is one of the most useful and reliable tools for this sake. We have used GB-SAR (Ground Based SAR) for monitoring of the surface displacement at land slide areas, and it will be useful for observation of activities of volcano. Recently MIMO radar technology has been introduced and it has a good possibility to extend the ability of GB-SAR. Very fast data acquisition made it possible to measure 2D vibration of target objects, and it can be used for social infra structure monitoring. In this keynote speech, I will introduce some examples of radar technology which has been used for disaster mitigation.

Biography: Motoyuki Sato received the B.E., M.E degrees, and Dr. Eng. degree in information engineering from Tohoku University, Sendai, Japan, in 1980, 1982 and 1985, respectively. Since 1997 he has been a professor at Tohoku University until his retirement in 2023. He was a distinguished professor of Tohoku University 2007-2011, the director of Center for Northeast Asian Studies, Tohoku University 2009-2013.His current interests include transient electromagnetics and antennas, radar polarimetry, ground penetrating radar (GPR), borehole radar, electromagnetic induction sensing, GB-SAR and MIMO radar systems. He developed GPR sensors ALIS for humanitarian demining, and they are used in mine affected countries including Cambodia and Ukraine. He served the technical chair of GPR1996 in Sendai and the general chair of IGARSS2011 Sendai-Vancouver.

Title: Multi-scale Deformation Measurement by Radars for Geological Disaster Sensing
Speaker: Assoc. Prof. Yuanhao Li, Beijing Institute of Technology
Time: 17: 30-18: 00, December 5, 2023
Place: Liangjiang Grand Ballroom

Abstract: Geological hazards such as earthquakes, landslides, and ground subsidence pose a serious threat to the safety of people's lives and properties in China. Deformation measurement is an important approach to achieving monitoring and early warning for geological hazards, which can help reduce the occurrence of disasters. Radars are the only sensors capable of achieving daylight-independent, all-weather surface deformation measurement. This speech focuses on multi-scale deformation measurement for geological disaster sensing using joint observation from multistatic spaceborne Synthetic Aperture Radar (SAR), Unmanned Aerial Vehicle based SAR, GNSS-based SAR, and ground-based Multi-Input-Multi-Output (MIMO) radar. The latest key technique progress made by the Beijing Institute of Technology in these radars, including imaging, error correction, three-dimensional deformation retrieval, radar instrument developments, etc. are presented. In particular, various applications of these radar systems in safety monitoring and disaster reduction of landslides around mines/dams/railways/power lines slopes, are discussed.

Biography: Yuanhao Li received the Ph.D. degree in Information and Communication Engineering from Beijing Institute of Technology (BIT), Beijing, China, in 2018. From 2016 to 2017, he worked as a visiting researcher with the Dipartimento di Elettronica e Informazione, Politecnico di Milano (PoliMi), Italy. In 2018, he became a post-doctoral researcher of the Department of Geoscience and Remote Sensing, Delft University of Technology (TU Delft), Delft, The Netherlands, where he was involved in the European Space Agency (ESA) 10th Earth Explore mission (The Harmony mission) and the ESA Alticubes altimeter constellation project. In 2021, he joined the School of Information and Electronics, BIT, currently he is an associate professor. His research interests include distributed spaceborne Synthetic Aperture Radar (SAR) systems, interferometric SAR technique, and radar altimeter constellations. Dr. Li was a recipient of the Chinese Institute of Electronics Youth Conference Excellent Paper Award in 2014.

Tutorials

Title: From LEO to GEO: Options for SAR Remote Sensing with Short Revisit
Speaker: Prof. Andrea Monti-Guarnieri
Time: 19: 30-22: 00, December 4, 2023
Place: Meeting Room 1

Abstract: The achievement of a short – ideally sub-daily revisit is one of the major goal of the future, as this would exploit at its best the day-and-night, full weather capabilities of SAR remote sensing. Constellations of small SAR sensors, mainly based on X-band SAR, in LEO orbit, are already available, and their number is progressively increasing increasing with time. It is expected that this would meet the demand for very high resolution product with fast refresh. However, such constellation would not be suited for imaging at medium to coarse resolution with sub-daily revisit over huge areas, that is needed for monitoring smooth fields, fastly evolving with time, like water-vapor, soil moisture, ground motion or flooding. Backcsatter maps and interferometric SAR products could play a relevant role in monitoring, and forecasting hazards connected with the water cycles and made much more intense by the temperature increase and climate changing.
In the proposed speech, we will shortly overview two different concepts aimed at short revisit, but serving very different applications, with very different performance, but providing a marked cost-effective approach. The first is an along-track formation of CubeSATs SAR, where multiple sensors, at least three, combines together to achieve a single high resolution image with reasonable large swath. The second is a SAR placed in a geostationary orbit, capable of imaging huge swath with very short revisit, even hourly. In both cases, we discuss the concepts, the intended applications, the strength and the weakdness, comparing them with competitive systems.

Biography: Andrea Virgilio Monti-Guarnieri, M.Sc. cum laude (1988) in electronic engineering, IEEE-member, full professor within " Dipartimento di Elettronica, Informazione e Bioingegneria". He is co-founder of POLIMI inter-departmental laboratory GEO-LAB. He has been chairing courses on digital and statistical signal processing, telecommunications, and RADAR.He coauthored over 250 scientific publications, of which 83 international peer-reviewed publications. H index (Google): 37, citations 7200, 4 conference awards, and applications for five patents. He has been in scientific-technical committees of international workshops and symposia on Radar and Earth Observation: Fringe workshop, Living Planet Symposium, PolinSAR, EUSAR, IEEE-IGARSS, IEEE-Radar conference, CEOS-SAR. He is co-founder of Polimi spin-off Aresys (2003), targeting SAR, Radar, and geophysics applications. In 2014-2018 he had been one member of the "Technical-scientific Committee "of the Italian Space Agency (ASI), nominated by the president. In 2015-2018 he had been an Italian alternate delegate member of GEO (Group on Earth Observations). His experience is focused on proposing applications, designing innovative SAR systems and solutions, particularly in spaceborne Synthetic Aperture Radar. He cooperates with ESA with activities and contracts: he has participated in the commissioning phases of ERS, ENVISAT, Sentinel1A and B, he has been a member of the Quality Working Group. He is currently member of ESA working group ESSEO, European Scientists on Spectrum for Earth Observation.He had been member of ESA Mission Advisory Group for the Hydroterra, candidate EE-10, and he is currently president of ASI MAG for the geostationary SAR mission.His current interests focus on Radar-based concepts, MIMO LEO SAR formations, Ground-Based Radar, satellite Radar for environmental monitoring, security and civil applications, and SAR for automotive.

Title: EM Waves and GPR Method; Processing, Topographic Migration and 1D Modeling
Speaker: Prof. Maksim BANO
Time: 19: 30-22: 00, December 4, 2023
Place: Meeting Room 2

Abstract: According to Maxwell's equations, a time-varying electric field (E) generates a time-varying magnetic field (H) and vice versa. Therefore an EM wave corresponds to a simultaneous propagation of the electric and magnetic field. The magnetic and electric fields of an EM wave are perpendicular to each other and the vector product E x H indicates the direction of propagation of the wave or the direction of the wave number vector (k). Light, for example, is an EM wave that has a propagation velocity c = 300 000 km/s (or 0.3 m/ns). EM waves can travel in a vacuum (free space), air, and solid objects, making them very useful for many technologies.The ground penetrating radar (GPR) method is a geophysical method, based on the propagation, reflection/diffraction of high frequency EM waves within the Earth. The frequencies used are on the range between 10 MHz and 2.5 GHz (wave length l = 10 m and 4 cm, for a velocity of V = 0.1 m/ns). The GPR method works for medium with low electrical conductivity s < 1 mS/m.GPR data processing is carried out with Radlab software written in MATLAB and developed in our laboratory. The sequence of the processing is as follows: Time-zero correction, DC (or running average over time) filter, amplification (AGC or Envelope), flat reflection (or running average over x) filter. After the last filter, we can also apply a frequency band-pass filter and continue the velocity analysis and finally topographic migration. Topographic migration is based on the Kirchhoff migration method and is necessary when the variation in topography is comparable to the depth of investigation. When the topography is almost flat, a classic migration method without topography works well. We show some processed GPR profiles (from Ecuador and Chad) obtained with a 250/500 MHz antenna.The dielectric constant (k = e/e0) for moist soils increases with increasing water content and lies in the range 6 to 30. This is because the dielectric constant of water (kw = 81) is much larger than that of dry soils (between 3 and 5). This implies a decrease in the propagation speed of GPR waves as humidity increases. Thus, by performing GPR measurements at different periods at the same location, we show an example of soil moisture monitoring. Finally, the last example presented here is the modeling of GPR signals from data obtained with a 2.5 GHz antenna on a mural in Mexico. The objective is to study the cracks/fissures on the wall paint using the GPR method.

Biography: Maksim Bano received the Master Degree in Physics from Ecole Normale Supérieure of Tirana University (1980), the Master Degree in Geophysics (1985) and the PhD doctorate in Applied Geophysics (1989) from Louis Pasteur University of Strasbourg, France. In 2000, he received the state doctoral thesis diploma (Habilitation à Diriger des Recherches: HDR) from the Strasbourg University. The title of the latter was: 'Imaging the interior of the Earth using GPR waves'. Maksim Bano is a member of European Association of Geoscientists & Engineers (EAGE) since 1996, Society of Exploration Geophysicists (SEG) since 1998, and is Associated Editor of 'Geophysics' journal since 2004. He co-organized (with Professor Sato, Tohoku University, Japan) the Workshop on "GPR measurements of active faults and tsunami sediments", Tokyo from 2nd to 8th October 2017. He is the main supervisor of six PhD's thesis, ten projects of Master degrees since 2002 and 60 engineer diplomas in geophysics since 1995. He is author of more than 60 papers in international journals with reading committee.

Title: Towards physical processing: radar polarimetry and polarimetric synthetic aperture radar imaging modes
Speaker: Prof. Andrea Buono, Affiliation: Engineering Department, University of Naples Parthenope, Naples, Italy.
Time: 19: 30-22: 00, December 4, 2023
Place: Meeting Room 5

Abstract: Nowadays, it is widely recognized that satellite radar remote sensing tools represent non-cooperative and cost-effective data sources to get continuous information at different temporal and spatial scales on a broad range of applications, including ocean surveillance, natural hazard monitoring and land use/cover mapping. The rapid development of engineering technologies observed during the last decades significantly boosted the implementation of advanced synthetic aperture radar (SAR) sensors characterized by high image quality, fine spatial resolution, wide area coverage and polarimetric imaging capabilities. Nonetheless, even though the scientific community agrees in considering SAR imagery a valuable information source for a plenty of applications, to fully explore the potential of polarimetric SAR measurements, tailored theoretical models are needed. Hence, during this tutorial, basic concepts of radar polarimetry will be first introduced to build-up a mathematical and electromagnetic formalism to deal with polarimetric SAR measurements. Then, an overview of spaceborne polarimetric SAR architectures will be provided to point out benefits and drawbacks of the different imaging modes in relationships with specific applications. Finally, the concept of physical processing will be covered as a methodology to generate Earth observation added-value products. In this context, the role played by polarimetric information in some important marine application will be showcased.

Biography: Andrea Buono received the B.Sc. and M.Sc. degrees in telecommunication engineering and the Ph.D. degree in information engineering from the Università di Napoli "Parthenope," Naples, Italy, in 2010, 2013 and 2017, respectively. Since 2018, he has been Assistant Professor with the Università di Napoli "Parthenope." and since 2021 he is qualified for the position of Associate Professor. He is IEEE Senior member (since 2022), Associate Editor for the IEEE Geoscience and Remote Sensing Letters (since 2022) and Guest Editor for the MDPI Remote Sensing Journal (since 2020). He was keynote speaker at the IEEE International Workshop on Metrology for the Sea (2023).His main research includes applied electromagnetics, including electromagnetic modeling, radar polarimetry, generation of added-value products in the framework of ocean and coastal area domains.

Oral Sessions

Oral Session 1: Machine Learning and Optimization for Radar Signal Processing

Time: 13: 30 – 15: 30, December 4, 2023
Place: Liangjiang Grand Ballroom 3
Chairs: Assoc. Prof. Cai Wen, Northwest University, China
Assoc. Prof. Yan Huang, Southeast University, China
Assoc. Prof. Zhanye Chen, Chongqing University, China

A0354 13:30 **WEAK ENERGY INTERFERENCE SUPPRESSION IN INSAR IMAGE USING SEMANTIC SEGMENTATION NETWORK**
Jiawang Li [1] , Yanyun Gong [1*] , Chuheng Tang [2] , Mingliang Tao [1] , Jia Su [1]
[1]Northwestern Polytechnical University, Xi'an 710072, China
[2]Shanghai Institute of Satellite Engineering, Shanghai 201109, China

B0548 13:45 **SPARSE ARRAY PATTERN SYNTHESIS BY PHASE-ONLY CONTROL AND REGULARIZED ANTENNA SWITCHING**
Lanfeng Ren, Cai Wen*, Member, IEEE, Shu Wen

C0597 14:00 **A TRPCA BASED MUTUAL INTERFERENCE MITIGATION METHOD FOR FMCW MILLIMETRE-WAVE RADAR**
Ken Chen [1,2] , Xinyu Guan [1] , Jiale Chen [1] , Kun Deng [1] , Hui Zhang [1] , Yan Huang [1*]
[1]State Key Lab of Millimetre Wave, Southeast University, Nanjing 210096, China
[2]Sichuan Digital Transportation Technology Co., Ltd., Chengdu 610095, China

C0718 14:15 **DETECTION AND RESOLUTION OF UAV SWARMS BASED ON KT AND ANM**
Yu Zhou [1,2] , Liming Gou [1,2] , Jun Wan [3*] , Zhanye Chen [3]
[1]National Laboratory of Radar Signal Processing, Xidian University, Xi'an, China
[2]Hangzhou Institute of Technology, Xidian University, Hangzhou, China
[3]School of Microelectronics and Communication Engineering, Chongqing University, Chongqing

C0720 14:30 **APPLICATION OF COMPLEX DEEP NEURAL NETWORKS IN COMPLEX DATA PROCESSING AND COMPARATIVE ANALYSIS OF ACTIVATION FUNCTIONS**
Junxiang Yang [1] , Ying Zhou [2] , Hui Ma [1] , Kun Lv [1] , Hongwei Liu [1] , Lin Liu [2*]
[1]National Key Laboratory of Radar Signal Processing, Xidian University , Xi'an, China
[2]Beijing Institute of Remote-sensing Equipment Science and Technology on Millimeter-wave Laboratory, Beijing, China

C0745 14:45 **MOVING AIRCRAFT RECOGNITION WITH TRANSFORMER BASED ON RADAR TRAJECTORIES**
Xin Lin [1] , Shaojie Ai [1] , Changhong He [2] , Jing He [1] , Jing Liu [3*] , Qing Lu [1] , Xiangcheng Wan [1]
[1]Shanghai Institute of Satellite Engineering, Shanghai, China
[2]Nanjing Research Institute of Electronics Technology, China
[3]Tianjin University, Tianjin, China

D650 **A NEW SAR TARGET IMAGE GENERATION METHOD BASED ON ANGLE**
15:00 **TRANSFORMATION**
Zhiqiang Zeng [1] , Xiaoheng Tan [1] , Xin Zhang [1] , Yan Huang [2] , Jun Wan [1] , Zhanye Chen [1*]
[1]School of Microelectronics and Communication Engineering, Chongqing University, Chongqing, China
[2]State Key Laboratory of Millimeter Waves, Southeast University, Nanjing, China

E0546 **DRFM-BASED REPEATER JAMMING COGNITION METHOD BASED ON**
15:15 **RESNET WITH CHANNEL-ATTENTION MECHANISM**
Zhengyan Zhang [1] , Bowen Han [1] , Fengrui Liu [1] , Xiaodong Qu [1*] and Xiaopeng Yang[1,2]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China.
[2]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing 314001, China.

Oral Session 2: Microwave Remote Sensing of Marine Target Monitoring

Time: **13: 30 – 15: 30, December 4, 2023**
Place: **VIP Reception Room**
Chairs: **Assoc. Prof. Congan Xu, Naval Aviation University, China**
Assoc. Prof. Nan Su, Harbin Engineering University, China
Prof. Qingwang Wang, Kunming University of Technology, China

13:30 **CHALLENGES OF SHIP DETECTION IN SAR IMAGES AND SOLUTIONS**
Zongxu Pan
Aerospace Information Research Institute, Chinese Academy of Sciences

13:45 **ROBUST BEAMFORMING BY INFINITY-NORM MINIMIZATION**
Xue Jiang
Shanghai Jiao Tong University

14:00 **ANALYSIS, REPRESENTATION AND APPLICATION OF TYPICAL POLARIMETRIC SCATTERING MECHANISM IN POLSAR**
Lamei Zhang
Harbin Institute of Technology

C0989 **SHIP DETECTION BASED ON FEATURE FUSION FOR DUAL-POL SAR**
14:15 **IMAGES**
Jinyue Chen [1,2] , Youming Wu [1] , Congan Xu [3,4] , Xin Gao [1] , Xian Sun [1,2*]
[1]Aerospace Information Research Institute, Chinese Academy of Sciences, Beijing 100190, China
[2]School of Electronic, Electrical and Communication Engineering, University of Chinese Academy of Sciences, Beijing 100190, China
[3]Information Fusion Institute, Naval Aviation University, Yantai, Shandong 264000, China
[4]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, Shandong 250300, China

C0990 **A NOVEL AZIMUTH AMBIGUITY SUPPRESSION ALGORITHM FOR SHIP**
14:30 **MONITORING**

Yuxi Suo [1, 2] , Xian Sun [1, 2] , Congan Xu [3, 4] , Tian Miao[1] , Wenchao Zhao[1] , Youming Wu [1*]
[1]Aerospace Information Research Institute, Chinese Academy of Sciences, Beijing 100190, China
[2]School of Electronic, Electrical and Communication Engineering, University of Chinese Academy of Sciences, Beijing 100190, China
[3]Information Fusion Institute, Naval Aviation University, Yantai, Shandong 264000, China
[4]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, Shandong 250300, China

E0503 **A MULTI-AGENT JAMMING DECISION-MAKING METHOD BASED ON**
14:45 **SP-HASAC**

Jingpeng Gao [1] , Chen Shen [1*] , Lu Gao [2] , Zhiye Jiang [3]
[1]College of Information and Communication Engineering, Harbin Engineering University, Harbin, China
[2]Beijing Institute of Electronic System Engineering, Beijing, China
[3]National Key Laboratory of Science and Technology on Test Physics and Numerical Mathematics, Beijing Institute of Space Long March Vehicle, Beijing, China

E0877 **SCAN PERFORMANCE OF SMALL BOAT RCS ENHANCERS**
15:00

Derek Gray [1] and Julien Le Kernec [1]
[1]James Watt School of Engineering, University of Glasgow, Glasgow, U.K..

F0268 **GENERALIZED SPARSELY INDEX MODULATION OFDM FOR**
15:15 **INTEGRATED SENSING AND COMMUNICATION WAVEFORM DESIGN**

Wenxing Zhou [*] , Ruoyu Zhang [*] , Jingqi Wang [*] , Chen Miao [*] , Zhenduo Wang [†] Wen Wu [*]
[*] Key Laboratory of Near-Range RF Sensing ICs Microsystems (NJUST), Ministry of Education, School of Electronic and Optical Engineering, Nanjing University of Science and Technology, Nanjing 210094, China
[†]College of Information and Communication Engineering, Harbin Engineering University, Harbin 150001, China

Oral Session 3: Radar Target Detection and Recognition in the Era of AI

Time: **13: 30 – 15: 30, December 4, 2023**
Place: **Meeting Room 1**
Chairs: **Prof. Jing Tian, Beijing Institute of Technology, China**
Assoc. Prof. Yanhua Wang, Beijing Institute of Technology, China

13:30 **IMAGING RADAR POLARIMETRIC ROTATION DOMAIN INTERPRETATION AND APPLICATIONS**

SiWei Chen
National University of Defense Technology

13:45 **HETEROGENEOUS UAVS DETECTION AREA ALLOCATION**
Lei Zuo
Xi'dian University

C0092 **AN ADAPTIVE CFAR DETECTOR BASED ON BINARY NEURAL NETWORK**
14:00 **AND ITS FPGA IMPLEMENTATION**
Jiacheng He [1] , Jun Wang [2] , Bin Yang [3*]
[1]School of Electronic and Information Engineering, Beihang University, Beijing, China.
[1]Beihang University, 100191, Beijing, China

C0107 **HOLOGRAPHIC RADAR TRACKING ALGORITHM FOR**
14:15 **"LOW-SLOW-SMALL" MANEUVERING TARGETS**
Guo Niu [1] , Nannan Zhu [2 *], Xueqing Fang [3] , Xueyue Lei [2] , Yifan Wang [4] , Fuli Zhong[2]
[1]Foshan University, Foshan, China
[2]Sun Yat-Sen Univiersity, Guangzhou, China
[3]Jinan University, Guangzhou, China
[4]Guangzhou Communications Technician Institute, Guangzhou, China

C0202 **HIERARCHICAL CROSS ATTENTION MODEL FOR MULTI-MODAL HRRP**
14:30 **RECOGNITION**
Zi jie Xing [1*] , Guangfen Wei [1] , Bo Dan [2] , Wenjing Wu [3] , Zhilin Zhu [1]
[1]Shandong Technology and Business University, 264005, Yantai, China
[2]Naval Aviation University, 264001, Yantai, China
[3]Yantai University, 264005, Yantai, China

C0251 **SARVIT: VISION TRANSFORMER FOR SAR IMAGE INTERPRETATION**
14:45 **WITH EFFICIENT MODEL COMPRESSION FOR TIME-REAL PROCESSING**
Jian Ma [1] , Hao Zhang [2*] , Zhengjue Wang [2] , Zhibing Wang [1]
[1]Institute of Remote Sensing Satellite,China Academy of Space Technology, China Beijing, China
[2*] School of Electronic Engineering ,Xidian University, Xiaan, China

C0428 **GESTURE RECOGNITION BASED ON FUSED BI-DIRECTIONAL RANGE**
15:00 **DOPPLER INFORMATION WITH FMCW RADAR**
Shengkai Zhang [1] , Yixuan Song [1] , Qiaoye Hu [1] , K e Liu [1] , Yueli Li [1*]
[1]College of Electronic Science and Technology, National University of Defense Technology, Changsha, China

15:15 **RADAR INTELLIGENT INFORMATION PROCESSING AND APPLICATION FOR WEAK MARITIME TARGET**
Xiaolong Chen
Radar Maritime Target Detection Research Group, Naval Aviation University

Oral Session 4: Radar Imaging Jamming and Anti-Jamming Technology

Time: 13: 30 – 15: 30, December 4, 2023
Place: Meeting Room 2
Chairs: Prof. Yachao Li, Xidian University, China
Prof. Pingping Huang, Inner Mongolia University of Technology
Prof. Lei Zhang, Sun Yat-sen University, China
Prof. Piotr Samczynski, Warsaw University of Technology Institute of Electronic Systems, Poland

13:30 **RESEARCH PROGRESS ON RADAR RESISTANCE TO ACTIVE/PASSIVE INTERFERENCE**
Jiadong Wang
Xidian University

13:45 **SIGNAL CLASSIFICATION FROM OUT-OF-DISTRIBUTION DATA**
Shuyuan Yang
Xidian University

14:00 **SAR TARGET RECOGNITION BASED ON DEVELOPMENT OF A CIRCULAR SAR DATASET**
Daiyin Zhu
Nanjing University of Aeronautics and Astronautics

14:15 **IMAGING AND ANTI-JAMMING TECHNOLOGY FOR NAVIGATION RADAR**
Yulin Huang
School of Information and Communication Engineering, University of Electronic Science and Technology of China (UESTC)

14:30 **ANTI-INTERFERENCE IN THE PHASE SYNCHRONIZATION OF LUTAN-1 BISTATIC SAR**
Pingping Lu
Aerospace Information Research Institute； Chinese Academy of Sciences Associate Research Scientist

C0477 14:45 **AN INVALID DECEPTION-JAMMER AREA CALCULATION METHOD OF BISTATIC SAR**
Yaowei Kang[1] , Bing Sun [1*] , Haochuan Wang [1] , Min Zhao [1]
[1]School of Electronic and Information Engineering, Beihang University, Beijing, China

C0483 15:00 **FORWARD-LOOKING HIGH-RESOLUTION IMAGING USING RANDOM STEPPED-FREQUENCY WAVEFORM**
Di Wu [1] , Endi Zhu [1] , Yachao Li [1*] , Jiadong Wang [2]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, China
[2]Academy of Advanced Interdisciplinary Research, Xidian University, Xi'an, China

D0916 15:15 **FOCUSED BISTATIC ISAR IMAGING DEMONSTRATION WITH NONPARAMETRIC AUTOFOCUSING**
Hongmeng Chen [1] , Jun Li [1 *] , Rui Zhou [1] , Yuming Hua [2] , Sheng Jin [2] , Dan Liu [1] , Yaobing Lu [1]
[1]Beijing Institute of Radio Measurement, Beijing, China, 100854
[2]Beijing Institute of Tracking and Telecommunication Technology, Beijing, China, 100094

Oral Session 5: Ground Penetrating Radar

Time: 13: 30 – 15: 30, December 4, 2023
Place: Meeting Room 3
Chairs: Prof. Hai Liu, Guangzhou University, China
Assistant Prof. Tian Lan, Beijing Institute of Technology, China

13:30 **GPR MIGRATION AND FULL WAVEFORM INVERSION**
Deshan Feng
Central South University

13:45 **DETECTION OF FRACTURES WITH FLUID FLOW USING FULL-POLARIMETRIC GPR**
Feng Xuan
Jilin University

C0353 14:00 **A MULTI-FREQUENCY GPR DATA FUSION TECHNOLOGY BASED ON END-TO-END DEEP NEURAL NETWORKS**
Xi Luo [1] , Xiaopeng Yang [1] , Junbo Gong [2] , Tian Lan [1, 2*]
[1]School of Information and Electronics, Beijing Institute of Technology, 100081,Beijing, China
[2]Chongqing Innovation Center, Beijing Institute of Technology, 401120 ,Chongqing, China

C0385 14:15 **SURFACE ACOUSTIC WAVE REFLECTIVE DELAY LINE AS PASSIVE COOPERATIVE TARGET FOR WIRELESS SUB-SURFACE SENSING IN IQUID USING GROUND PENETRATING RADAR**
Jean-Michel Friedt [1*] , David Rabus [1,2] , Lilia Arapan [1,3], Vincent Luzet [1] , Frédéric Chérioux [1]
[1]Université de Franche-Comté, FEMTO-ST, CNRS, 25000 Besançon, France
[2]Current affiliation Statice SAS, 25000 Besançon, France
[3]Current affiliation Silmach SA, 25000 Besançon, France

C0603 14:30 **ENHANCING GPR FULL WAVEFORM INVERSION IMAGING ACCURACY THROUGH DEEP LEARNING-BASED STOCHASTIC CLUTTER SUPPRESSION**
Xiangyu Wang [1] , Junhong Chen [1] , Hai Liu [1*]
[1]School of Civil Engineering, Guangzhou University, Guangzhou 510006, China

G195 14:45 **DEEP ITERATIVE NETWORK-BASED PERMITTIVITY INVERSIONS FOR GROUND PENETRATING RADAR DATA**
Jiahao Li [1] , Huilin Zhou [1*] , Jianping Zhang [1]
[1]School of Information Engineering, Nanchang University, Nanchang 330031, China

G824 15:00 **MAGNETIC RESONANCE EDDY PENETRATING IMAGING FOR DETECTING REINFORCEMENT CORROSION IN CONCRETE**
Haitao Chen [1] , Leng Liao [1*]
[1]School of Materials Science and Engineering, Chongqing Jiaotong University, Chongqing 400074, China

Oral Session 6: Automotive Radar

Time: 13: 30 – 15: 30, December 4, 2023
Place: Meeting Room 5
Chairs: Prof. Le Zheng, Beijing Institute of Technology, China
Prof. Yilong Lu, Nanyang Technological University, Singapore

13:30 **AI POWERED DATA PROCESSING -A NEW HORIZON FOR LOW-COST HIGH-PERFORMANCE AUTOMOTIVE RADAR**
Yilong Lu
Nanyang Technological University

C0817 13:45 **MULTI-FRAME TRACK-BEFORE-DETECT FOR ADJACENT EXTENDED TARGETS**
Miao Li [1] , Wujun Li [1] , Wei Zhang [1] , Qing Miao [1] , Pan Mou [1] , and Wei Yi [1*]
[1]University of Electronic Science and Technology of China, Chengdu, China

A609 14:00 **A SPARSE-BASED DOA ESTIMATION METHOD BASED ON DEEP LEARNING**
Tao Luo [1] , Peng Chen [1,*] , Zhimin Chen [2,*] , Zhenxin Cao [1]
[1]The State Key Laboratory of Millimeter Waves, Southeast University, Nanjing, China
[2]The School of Electronic and Information, Shanghai Dianji University, Shanghai, China

C0026 14:15 **AUTOMOTIVE RADAR INTERFERENCE MITIGATION USING PRINCIPAL SIGNAL COMPONENT ESTIMATION**
Maxim Bulygin [*] , Anna Dzvonkovskaya [**] , Boya Qin [***]
Huawei Technologies Co., Ltd., Moscow, Russia

C0490 14:30 **A DESIGN OF PHASE-COMPENSATED PERIODIC FMCW TOWARD RANGE ESTIMATION WITH LIMITED BANDWIDTH**
Kai Gao [1] , Yujie Xian [1] , Shang Ma [1*] , Bowen Li [1] , Kaijiang Li [1]
[1]National Key Laboratory of Wireless Communications
University of Electronic Science and Technology of China, Chengdu, China

C0598 14:45 **A NOVEL POINT CLOUD EXTRACTION AND FEATURE DESIGN APPROACH FOR RADAR-BASED OBJECT CLASSIFICATION**
Yi Zhou, [1,2,3,5] , Miguel López-Benítez [5] , Limin Yu [2*] , Yutao Yue [134*]
[1]Institute of Deep Perception Technology, JITRI, Wuxi 214000, China
[2]School of Advanced Technology, Xi'an Jiaotong-Liverpool University, Suzhou 215123, China
[3]XJTLU-JITRI Academy of Industrial Technology, Xi'an Jiaotong-Liverpool University, Suzhou 215123, China
[4]Department of Mathematical Sciences, University of Liverpool, Liverpool L69 7ZX, UK
[5]Department of Electrical Engineering and Electronics, University of Liverpool, Liverpool L69 7ZX, UK

C0706 **AN ENHANCED ITERATIVE ADAPTIVE APPROACH FOR AUTOMOTIVE**
15:00 **MIMO RADAR FORWARD-LOOKING IMAGING**
Ruiyuan Li [1] , Haiyou Qu [2] , Chang Chen [3] and Weidong Chen [4*]
[1-4]Department of Electronic Engineering and Information Science, University of Science and Technology of China, No.96, JinZhai Road Baohe District, Hefei, P.R.China

C0924 **A VARIATIONAL BAYES BASED EXTENDED OBJECT TRACKING**
15:15 **METHOD FOR 4D RADAR**
Haowen Zhou [1] , Qi Wang [1] , Xiaoyue Huang [1] , Majun Song [1] , Ping Li [1] , Jialong Jin [1] , Sha Li [1] ,Jingzheng Li [1]
[1]Nanjing Chuhang Technology Co., Ltd, Nanjing, China

Oral Session 7: Clutter Suppression/Classification and Target Detection for Complex Scenarios

Time: **16: 30 – 18: 30, December 4, 2023**
Place: **Liangjiang Grand Ballroom 3**
Chairs: **Prof. Shuwen Xu, Xidian University, China**
Assoc. Prof. Danilo Orlando, Università degli Studi "Niccolò Cusano", Italy
Assoc. Prof. Jun Liu, University of Science and Technology of China, China
Assoc. Prof. Jian Xue, Xi'an University of Posts & Telecommunications, China

16:30 **RADAR TARGET DETECTION IN SEA CLUTTER AT HIGH GRAZING ANGLES**
Yong Yang
National University of Defense Technology

16:45 **DATA MODEL JOINTLY DRIVEN CFAR TARGET DETECTION**
Yongchan Gao
Xidian University

17:00 **MULTICHANNEL ADAPTIVE SIGNAL DETECTION: BASIC THEORY AND SOME APPLICATIONS**
Weijian Liu
Wuhan Electronic Information Institute

17:15 **INTELLIGENT SENSING OF MARITIME RADAR SCENE INFORMATION**
Jian Xue
Xi'an University of Posts and Telecommunications

C0047 **A DUAL-POLARIZED MAXIMUM EIGENVALUE BASED TARGET**
17:30 **DETECTION METHOD FOR SEA CLUTTER ENVIRONMENT**
Xingyu Jiang [1*] , Ningbo Liu [1] , Hao Ding [1] Yong Huang [1] , Jian Guan [1] , Tong Liu [2]
[1]Information Fusion Institute, Information Fusion Institute, Naval Aviation University, Yantai, China
[2]Shandong Communication & Media College, Jinan, China

C0070 **ADAPTIVE TIME-SPACE-VARYING CLUTTER SUPPRESSION**
17:45 **ALGORITHM FOR HANDHELD IR-UWB RADAR**
Song Wang [1] , Wenguo Weng [1*] , Rudong Wang [1] , Ganning Wang [1]
[1]Institute of Public Safety Research, Department of Engineering Physics, Tsinghua University, Beijing, P.R. China

C0294 **AERIAL TARGET CLASSIFICATION METHOD BASED ON CLUTTER**
18:00 **SUPPRESSION AND FULLY CONNECTED NEURAL NETWORK**
Meiyan Pan [1] , Xingyu Cai [1] , Jian Xue [2*]
[1]Xi'an Electronic Engineering Research Institute, Xi'an, China
[2]Xi'an University of Posts and Telecommunications, Xi'an, China

C0401 **ROBUST LOW-RANK MATRIX COMPLETION UNDER GENERALIZED**
18:15 **GAUSSIAN MIXTURE MODEL WITH APPLICATION TO DOA ESTIMATION**
Mengjiao Tang [1] , Zeqiong Zan [1] , Yao Rong [1*] , Sanfeng Hu [1] , and Fan Li [2]
[1]Yunnan Key Laboratory of Statistical Modeling and Data Analysis, Yunnan University, Kunming, China
[2]CAAC Key Laboratory of Flight Techniques and Flight Safety, Civil Aviation Flight University of China, Guanghan, China

Oral Session 8: Advances in Multi-temporal InSAR Algorithms and Applications for the Urban Environment

Time: **16: 30 – 18: 30, December 4, 2023**
Place: **VIP Reception Room**
Chairs: **Prof. Hanssen Ramon, Delft University of Technology, The Netherlands**
Assoc. Prof. Fengming Hu, Fudan University, China
Assoc. Prof. Mengshi Yang, Yunnan University, China

16:30 **PRECISE POSITIONING OF POINT SCATTERS BY MULTIPLE SAR IMAGES**
Jicang Wu
College of Surveying and Geo-Informatics, Tongji University

16:45 **DISTRIBUTED SCATTERERS INTERFEROMETRY AND DSIPRO**
Mi Jiang
Sun Yat-sen University

17:00 **DEMONSTRATING THE MULTI-TEMPORAL INTERFEROMETRY CAPABILITY OF THE CHINESE GAOFEN-3A/B/C CONSTELLATION**
Yuxiao Qin
Northwestern Polytechincal University

A0601 **A FAST VISULIZATION STRATEGY FOR LONG TIME SERIES SAR**
17:15 **IMAGR CHANGE DETECTION**
Weisong Li [1] , Fengming Hu [2*] , Haipeng Wang [3]
[1,2,3]Key Laboratory of Information Science of Electromagnetic Waves, Fudan University, Shanghai 200433,China

A0637 **PHASE CALIBRATION FOR AIRBORNE ARRAY-INSAR TOMOGRAPHY**
17:30 Yexian Ren [1] , Fengming Hu [2*] , Feng Xu [2]
[1]Nanjing University of Information Science and Technology, Nanjing, China
[2]Fudan University, Shanghai, China

A0960 **THEORETICAL ANALYSIS OF LAYOVER UNMIXING BASED ON THE**
17:45 **ATTRIBUTED SCATTERING CENTER MODEL**
Zhilong Yang [1*] , Fengming Hu [1*] , Feng Xu [1*]
[1]Fudan University, Shanghai, China

D0805 **A DOPPLER SPECTRUM FOLDING REMOVAL METHOD FOR HIGH**
18:00 **RESOLUTION SQUINTED SAR**
Yang Gao [1 *], Tianshun Xiang [1] , Juanjuan Yang [1] , Hongxing Dang [1] , Suli Lei [1] , Xiaomin Tan [1]
[1]China Academy of Space Technology, Xi'an, China

D0847 **SURFACE DEFORMATION PATTERN RECOGNITION IN THE URBAN**
18:15 **ENVIRONMENT USING MT-INSAR AND LSTM**
Saiwei Li [1] , Mengshi Yang [2*]
[1]Institute of International Rivers and Eco-Security, Yunnan University, Kunming, China
[2]School of Earth Sciences, Yunnan University, Kunming, China

Oral Session 9: Electromagnetic Scattering Theory and Applications of Polarimetric Radar Remote Sensing

Time: **16: 30 – 18: 30, December 4, 2023**
Place: **Meeting Room 1**
Chairs: **Dr. Yanlei Du, Aerospace Information Research Institute, CAS, China**
Prof. Jian Yang, Tsinghua University, China

D0627 **POLSAR SHIP DETECTION BASED ON NEIGHBORHOOD**
16:30 **POLARIMETRIC TENSOR**
Dawei Ren [1] , Songli Han [1] , Junjun Yin [2] , Jian Yang [1*]
[1]Department of Electronic Engineering, Tsinghua University, Beijing, China
[2]School of Computer and Communication Engineering, University of Science and Technology Beijing, Beijing,China

D0773 **MULTI-FREQUENCY POLSAR IMAGE CLASSIFICATION BASED ON**
16:45 **CROSS ATTENTION VIT**
Hongmiao Wang [1] , Dawei Ren [1] , Junjun Yin [2] , Jian Yang [1*]
[1]Departments of Electronic Engineering, Tsinghua University, Beijing, China
[2]School of Computer and Communication Engineering, University of Science and Technology Beijing, Beijing,China

A0782 **ANALYSIS OF SHIP WAKE DETECTION PERFORMANCE IN SIMULATED**
17:00 **POLARIMETRIC SAR IMAGERY**
Yanni Jiang [1] , Ziyuan Yang [1] , Ning Wang [1] , Tao Liu [1*]
[1]School of electronic engineering, Naval University of Engineering, Wuhan, China

D0097 17:15 **DUAL-POLARIZED ENTROPY EXTRACTION BASED ON NEW SCATTERING VECTOR AND ITS APPLICATION IN LANDSLIDE DETECTION**

Liting Liang [1*] , Yunhua Zhang [1,2] , Dong Li [1,2] , Xiao Dong [1,2]
[1]CAS Key Laboratory of Microwave Remote Sensing, National Space Science Center, Chinese Academy of Sciences, Beijing, China
[2]University of Chinese Academy of Sciences, No.19(A) Yuquan Road, Shijingshan District, Beijing, China

D0523 17:30 **STUDY ON THE THREE DIMENSION IMAGING METHODS OF FULLY-POLARISED ARRAY INSAR**

Shujie Song [1,2,3,4,5] , Xiaolan Qiu [1,2 3,5*] , Songtao Shangguan [2,3,5]
[1]Key Laboratory of Technology in Geo-spatial Information Processing and Application System, Chinese Academy of Sciences, Beijing, China
[2]Key Laboratory of Intelligent Aerospace Big Data Application Technology, Suzhou, China
[3]Suzhou Aerospace Information Research Institute, Suzhou, China
[4]School of Electronic, Electrical and Communication Engineering, University of Chinese Academy of Sciences, Beijing, China
[5]Aerospace Information Research Institute, Chinese Academy of Sciences, Beijing, China

D0535 17:45 **VEGETATION DESCRIPTORS DERIVED FROM DUAL-POLARIZATION SAR IMAGERY FOR MONITORING AGRICULTURAL CROP GROWTH**

Xin Bao [1] , Rui Zhang [1 *], Age Shama [1] , AnMengyun Liu [1] , Yunjie Yang [1] , Tianyu Wang [1]
[1]Faculty of Geosciences and Environmental Engineering, Southwest Jiaotong University, Chengdu, China

E0779 18:00 **PARAMETERIZED RADAR TARGET RCS MODEL WITH SPHERICAL HARMONICS SERIES**

Jiewen Cai [1] , Shenghua Zhou [1*] , Xiaoyu Xing [2]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, P.R. China.
[2]National Key Laboratory of Scattering and Radiation, Beijing, P.R. China.

E0922 18:15 **THE MONTE CARLO SIMULATION OF THE RADAR RECEIVED WAVE OF THE HYPERSONIC VEHICLE WITH PLASMA SHEATH**

Wei Liu [123 *], Yanjun Hao [123] , Feng Qiu [123] , Weiqi Zhou [123] , Yuhao Yang [123]
[1]Nanjing Research Institute of Electronics Technology, Nanjing 210039, China
[2]Key Laboratory of IntelliSense Technology, CETC, Nanjing 210039, China
[3]Jiangsu Provincial Key Laboratory of Detection and Perception Technology, Nanjing 210039, China

Oral Session 10: Passive Radar Technology

Time: **16: 30 – 18: 30, December 4, 2023**
Place: **Meeting Room 2**
Chairs: **Prof. Zhongyu Li, University of Electronic Science and Technology of China, China**
Assoc. Prof. Weike Feng, Air force Engineering University, China
Assoc. Prof. Jean-Michel Friedt, University of Franche Comte, France

16:30 **SIGNIFICANT WAVE HEIGHT ESTIMATION FROM SPACEBORNE GNSS-REFLECTOMETRY**
Shuanggen Jin
Henan Polytechnic University

16:45 **SOFTWARE DEFINED RADIO (SDR) PASSIVE RADAR IMPLEMENTATIONS**
Jean-Michel Friedt
University of Franche-Comté

17:00 **MULTI-ILLUMINATOR-BASED PASSIVE RADAR TECHNOLOGY**
XianRong Wan
Wuhan University

17:15 **RESEARCH ON CLUTTER SUPPRESSION FOR AIRBORNE PASSIVE RADAR**
Jun Wang
Xidian University

17:30 **TARGET DETECTION BASED ON PASSIVE RADAR**
Lu Sun
Dalian Maritime University

17:45 **SUPER-RESOLUTION ANGLE MEASUREMENT TECHNOLOGY AND APPLICATION OF PASSIVE RADAR**
Jian Gong
Air Force Engineering University

A0812 **LOW EARTH ORBIT SATELLITE-BASED PASSIVE RADAR TARGET**
18:00 **TRACKING VIA WINDOW SLIDING PROCESSING**
Xingye Qiu, Chuan Huang, Zhongyu Li [*] , Junjie Wu, Jianyu Yang
School of Information and Electronic Science, University of Electronic Science and Technology of China, Chengdu, China

C0389 **AIRBORNE PULSE-DOPPLER RADAR MOVING TARGET DETECTION**
18:15 **BASED ON GENERALIZED IMAGE FEATURE AND DEEP LEARNING**
Weike Feng [1] , Fuyu Lu [1] , Tao Pu [2] , Xixi Chen [1*] , Yiduo Guo [1] , Xiaowei Hu [1] , Bo Pang [2]
[1]Early Warning and Detection Department, Air Force Engineering University, Xi'an, China
[2]Graduate School, Air Force Engineering University, Xi'an, China

Oral Session 11: Weather Radar and its Application

Time: 16: 30 – 18: 30, December 4, 2023
Place: Meeting Room 3
Chairs: Assoc. Prof. Xichao Dong, Beijing Institute of Technology, China
Prof. Jianbing Li, National University of Defense Technology, China

16:30 **DEVELOPMENT AND IMPLEMENTATION OF SIGNAL PROCESSING TECHNIQUES FOR GROUND CLUTTER MITIGATION AND NOISE SUPPRESSION ON POLARIMETRIC DOPPLER WEATHER RADAR**
Kun Zhao
Nanjing University

16:45 **MARINE AEROSOL OPTICAL PROPERTIES, DUST TRANSPORT AND WIND FIELDS OVER REMOTE OCEANS WITH USE OF SPACEBORNE LIDAR OBSERVATIONS**
Songhua Wu
Ocean University of China

17:00 **NOVEL CLOUD DETECTION AND MICROPHYSICAL PROPERTIES RETRIEVAL METHODS FOR MILLIMETER-WAVELENGTH CLOUD RADAR**
Jinming Ge
Lanzhou University

17:15 **FEATURE SCREENING AND DATA PROCESSING OF GLOBAL TARGETS FOR THE METEOROLOGICAL SATELLITE RADAR**
Weidong Hu
Beijing Institute of Technology

17:30 **RADAR CHARACTERISTICS AND SENSING TECHNOLOGIES OF DISTRIBUTED SOFT TARGET**
Jianbing Li
National University of Defense Technology

17:45 **METEOROLOGICAL TARGET ECHO SIMULATION OF AIRBORNE DUAL POLARIZATION WEATHER RADAR BASED ON WRF**
Hai Li
Civil Aviation University of China

18:00 **DEVELOPMENT OF COMPACT AIRSHIP-BORNE POLARIMETRIC WEATHER RADAR FOR TYPHOON OBSERVATION**
Xichao Dong
Beijing Institute of Technology

18:15 **HIGH SPATIAL-TEMPORAL RESOLUTION WEATHER RADAR NETWORK FOR TORNADO OBSERVATION**
Qiangyu Zeng
Chengdu University of Information Technology

Oral Session 12: Planetary Radar

Time: 16: 30 – 18: 30, December 4, 2023
Place: Meeting Room 5
Chairs: Prof. Zegang Ding, Beijing Institute of Technology, China
Assistant Prof. Zehua Dong, Beijing Institute of Technology, China

16:30 **UNVEILING THE INTERIOR OF THE MARTIAN POLAR CAPS WITH RADAR**
Roberto Orosei
National Institute for Astrophysics / University of Bologna

16:45 **ADVANCES IN IMAGING PLANETARY SUBSURFACE STRUCTURES BY RADAR**
Jinhai Zhang
The Institute of Geology and Geophysics, Chinese Academy of Sciences (IGGCAS)

17:00 **CHANG'E-5 ANTENNA ARRAY RADAR**
Yan Su
National Astronomical Observatories, Chinese Academy of Sciences (NAOC)

17:15 **THE FINE STRUCTURE AND DIELECTRIC PROPERTIES OF MARTIAN REGOLITH AT THE ZHURONG LANDING SITE**
Yi Xu
Macau University of Science and Technology

17:30 **ROVER-MOUNTED RADAR OBSERVATION OF DISCRETE LAYERS WITHIN THE TOP 4 METERS OF REGOLITH AT THE CHANG'E-3 LANDING SITE, THE MOON**
Chunyu Ding
Shenzhen University

C0977 **FULLY POLARIZED GROUND PENETRATING RADAR IMAGING AND**
17:45 **SCATTERING INFORMATION EXTRACTION**
Rui Chen [1] , Honkuan Wong [1] , Yi Xu [1*] , Ling Zhang [1,2]
[1]Macau University of Science and Technology, Macau, China
[2]Sun Yat-sen University, No. 135, Xingang West Road, Haizhu District, Guangzhou, China

G611 **ASTEROID SHAPE RECONSTRUCTION METHOD BASED ON**
18:00 **CONVOLUTIONAL NEURAL NETWORK**
Chen Yan [1] , Zehua Dong [1,2*] , Na Zhang [1] , Zegang Ding [1,2]
[1]Radar Research Laboratory, School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China
[2]Chongqing Innovation Center, Beijing Institute of Technology, Chongqing 401120, China

G772 **STUDIES OF ICE LOBES AT THE EDGE OF MARTIAN SOUTH POLAR CAP**
18:15 **USING SHARAD**
Xu Meng [1] , Yi Xu [2*] , Qi Jin [2] , Long Xiao [3] , Diwen Duan [1] , Hai Liu [1]
[1]School of Civil Engineering, Guangzhou University, Guangzhou, China
[2]State Key Laboratory of Lunar and Planetary Sciences, Macau University of Science and Technology, Macau, China
[3]Planetary Science Institute, School of Earth Sciences, China University of Geosciences, Wuhan, China

Oral Session 13: Advanced ISAR Signal Processing and Information Acquisition

Time: **8: 00 – 10: 00, December 5, 2023**
Place: **Liangjiang Grand Ballroom 3**
Chairs: **Prof. Yong Wang, Harbin Institute of Technology, China**
Prof. Xueru Bai, Xidian University, China
Prof. Ying Luo, Air Force Engineering University, China

8:00 **INVERSE SYNTHETIC APERTURE RADAR IMAGING OF TARGET WITH COMPLEX MOTIONS**
Yong Wang
Harbin Institute of Technology

8:15 **SPARSE BAYESIAN LEARNING AND ITS DEEP NETWORK IMPLEMENTATION**
Xueru Bai
Xidian University

8:30 **RADAR IMAGING AND FEATURE EXTRACTION OF SPACE TARGETS**
Shuanghui Zhang
National University of Defense Technology

8:45 **THREE-DIMENSIONAL GEOMETRY RECONSTRUCTION OF THE SPACE TARGET UTILIZING SEQUENTIAL ISAR IMAGES**
Lei Liu
Xidian University

C0665 **A SBL-BASED UNROLLED DEEP NETWORK FOR HIGH-RESOLUTION**
9:00 **ISAR IAMGING**
Jingyi Zhang [1*] , Yujie Zhang [1] , Xueru Bai [1]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, China

D0728 **THREE-DIMENSIONAL IMAGING BASED ON L-SHAPED ANTENNA**
9:15 **ARRAY WITH VORTEX ELECTROMAGNETIC WAVE**
Jia Liang [1*] , Yu-Dong Liu [2] , Yi-Jun Chen [3] , Zi-Sen Qi [1] , Ying Luo [1]
[1]Institute of Information and Navigation, Air Force Engineering University, Xi'an, China
[2]Department of Research and Development, China Academy of Launch Vehicle Technology, Beijing, China
[3]National Lab of Radar Signal Processing, Xidian University, Xi'an, China

D0778 **A NOVEL 3-D GEOMETRY RECONSTRUCTION METHOD OF SPACE**
9:30 **TARGET BASED ON JOINT OPTICAL-AND-ISAR OBSERVATION**
Wanting Zhou [1] , Lei Liu [1*] , Rongzhen Du [1] , Yang Yang [1] , Feng Zhou [1]
[1]Key Laboratory of Electronic Information Countermeasure and Simulation Technology of Ministry of Education, Xidian University, Xi'an, China

D906 **A 3-D IMAGING METHOD BASED ON PHASE-DERIVED TECHNOLOGY**
9:45 **UNDER SQUINT MODEL**
Kaifu Hou [1,2] , Lixiang Ren [1,2*] , Huayu Fan [1,3] , Jishan Yan [1,2] , Erke Mao [1,2]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China
[2]Key Laboratory of Electronic and Information Technology in Satellite Navigation (Beijing Institute of Technology), Ministry of Education, Beijing 100081, China
[3]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing 314033, China

Oral Session 14: Exploiting Diversities in Array Radar Signal Processing

Time: **8: 00 – 10: 00, December 5, 2023**
Place: **Gaoke Junior Ballroom 1**
Chairs: **Assoc. Prof. Lan Lan, Xidian University, China**
Prof. Zhiguo Shi, Zhejiang University, China
Prof. Ercan Engin KURUOGLU, Tsinghua-Berkeley Shenzhen Institute / ISTI - CNR, Italy
Assoc. Prof. Junhui Qian, ChongqingUniversity, China

8:00 **INTEGRATED SENSING AND COMMUNICATION: KEY TECHNIQUES AND EMERGING APPLICATIONS**
Lei Huang
Shenzhen University

8:15 **MAINLOBE JAMMING SUPPRESSION FOR COGNITIVE RADAR**
Guolong Cui
University of Electronic Science and Technology of China

8:30 **MSE LOWER BOUND FOR MULTI-SOURCE DOA ESTIMATION: FROM CRAMÉR-RAO TO ZIV-ZAKAI**
Zhiguo Shi
College of Information Science and Electronic Engineering, Zhejiang University

8:45 **BISTATIC MIMO DFRC SYSTEM WAVEFORM DESIGN VIA SYMBOL DISTANCE/DIRECTION DISCRIMINATION**
Junli Liang
School of Electronics and Information, Northwestern Polytechnical University, China

9:00 **MIMO MULTIFUNCTION RF SYSTEMS: FUNDAMENTAL LIMITS AND WAVEFORM DESIGN**
Bo Tang
National University of Defense Technology

9:15 **CONTROL AND UTILIZATION OF RANGE-DEPENDENT BEAMPATTERN WITH WAVEFORM DIVERSE ARRAY RADARS**
Lan Lan
Xidian University

A0479 **JOINT DESIGN OF THE TRANSMIT AND RECEIVE BEAMFORMING VIA**
9:30 **ADMM FOR LPI RADAR**
Pengcheng Gong [1,2] , Zhuoyu Zhang [1] , Xu Cheng [1] , Yuntao Wu [1] , Yingxi Ding [2]
[1]School of Computer Science and Engineering, Wuhan Institute of Technology, Wuhan 430205, China
[2]School of Electrical and Electronic Engineering, Hubei University of Technology, Wuhan 430068, China

C0274 **JOINT DESIGN OF THE TRANSMIT AND RECEIVE BEAMFORMING VIA**
9:45 **NON-ITERATIVE OPTIMIZATION FOR MIMO RADAR**
Yujia Li [1] , Xiaolin Du [1*] , Mengjiao Tang [2] , Guolong Cui [3] , Yao Rong [2]
[1]Computer and Control Engineering, Yantai University, Yantai, China
[2]Yunnan Key Laboratory of Statistical Modeling and Data Analysis, Yunnan University, Kunming, China
[3]Information and Communication Engineering, University of Electronic Science and Technology of China, Chengdu, China

Oral Session 15: Intelligent and Real-time Understanding and Processing for Earth-Observation Remote Sensing Tasks

Time: **8: 00 – 10: 00, December 5, 2023**
Place: **Meeting Room 1**
Chairs: **Prof. Lan Du, Xidian University, China**
Assistant Prof. Hao Shi, Beijing Institute of Technology, China
Assistant Prof. Yuqi Han, Beijing Institute of Technology, China

8:00 **SIMULTANEOUS LOCALIZATION AND IMAGING WITH MULTIROTOR-BORNE MINISAR**
Feng Xu
School of Information Science and Technology, Fudan University

8:15 **SCATTERING CHARACTERISTIC-AWARE FULLY POLARIZED SAR SHIP DETECTION**
Gui Gao
Southwest Jiaotong University

8:30 **BRIDGING THE GAP: INTEGRATING SAR AND OPTICAL DATA FOR ROBUST CLASSIFICATION**
Zenghui Zhang
Shanghai Jiao Tong University

8:45 **SAR IMAGE PROCESSING BASED ON FEATURE LEARNING**
Shuang Wang
Xidian University

C0130 **SIAMSTO: A NOVEL METHOD FOR OBJECT TRACKING WITH**
9:00 **SATELLITE VIDEOS**
Li Bai [1] , Yaowen Li [1] , Yu Liu [2*] , Zhizhuo Jiang [1]
[1]Tsinghua Shenzhen International Graduate School, Tsinghua University, Shenzhen, China
[2]Department of Electronic Engineering, Tsinghua University, Beijing, China

C0361 **RESEARCH ON SAR IMAGE MATCHING BASED ON SAR-HARRIS**
9:15 **DETECTOR AND ADAPTIVE LOCALLY-AFFINE MATCHING**
Guanghui Wu [1,2,3] , Hao shi [1,2,3] , Fan Chen [1,2] , Hongxin Pan [1,2,3] , Liang Chen [1,2*]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing, China
[3]Beijing Institute of Technology Chongqing Innovation Center, Chongqing, China

C0448 **OPTICAL KNOWLEDGE ASSISTED UNSUPERVISED CROSS-DOMAIN SAR**
9:30 **TARGET DETECTION**
Yu Shi [1] , Lan Du [1*] , Yuchen Guo [2] , Yuang Du [1]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, China
[2]Academy of Advanced Interdisciplinary Research, Xidian University, Xi'an, China

C0981 **KD-NET: A NOVEL KNOWLEDGE- AND DATA-DRIVEN NETWORK FOR**
9:45 **SAR TARGET RECOGNITION WITH LIMITED DATA**
Ruonan Wang [1] , Zhaocheng Wang [1*] , Guang Zhang [1] , Hailong Kang [2,3] , Feng Luo [2,3]
[1]School of Electronics and Information Engineering, Hebei University of Technology, Tianjin 300401, China
[2]Hangzhou Institute of Technology, Xidian University, Hangzhou 311200, China
[3]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an 710071, China

Oral Session 16: MIMO Radars: Systems and Signal Processing

Time: **8: 00 – 10: 00, December 5, 2023**
Place: **Meeting Room 2**
Chairs: **Dr. Jianping Wang, Delft University of Technology, Netherlands**

A0238 **A CLOSED-FORM SOLUTION FOR TARGET LOCALIZATION AND CLOCK**
8:00 **REFINEMENT IN DISTRIBUTED MIMO RADAR SYSTEMS UNDER INACCURATE CLOCK SYNCHRONIZATION**
Haibo Song*, Jie Wang, Fu Yuan, Guofu Wu, Caizhi Fan
College of Aerospace Science and Engineering,
National University of Defense Technology, Changsha, China

A0630 8:10 **REFINED COHERENT PARAMETERS ESTIMATION BASED ON ITERATIVECHIRP-Z TRANSFORM FOR DCAR ON MOVING PLATFORMS**

Dingsen Zhou [1] , Minglei Yang [1*] , Hao Lian [1] , Teng Ma [1] , Jinyi Bao [1] , Zhou Ye [2] , and Guanghui Xu [2]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, China
[2]Shanghai Institute of Aerospace Electronic and Communication Equipment, Shanghai, China

A0767 8:30 **RESEARCH AND VERIFICATION STUDY ON AIRBORNE DISTRIBUTED COHERENCE-SYNTHETIC APERTURE RADAR**

Dongming Zhou [1,2] , Tianhang Wu [2] , Zhongwei Liu [2,3*] , Yaodong Zhang [2] , Xiaochuan Liu [2] , Quanhua Liu [1] , Hongwei Gao [2]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China
[2]Beijing Institute of Radio Measurement, Beijing 100039, China
[3]School of Electronic and Information Engineering, Beihang University, Beijing, China

A0967 8:45 **JOINT EGO-MOTION ESTIMATION AND 3D IMAGING FOR FORWARD-LOOKING REGION USING AUTOMOTIVE RADAR**

Sen Yuan [1 *] , Francesco Fioranelli [1] , Alexander Yarovoy [1]
[1]Department of Microelectronics, Delft University of Technology, Delft, The Netherlands

B0716 9:00 **AN ARRAY CALIBRATION METHOD BASED ON ITERATIVE WEIGHTED LEAST SQUARES IN RADIO ASTRONOMY**

Bowen Cai [1] , Xinliang Chen [123*] , Yue Li [12] , Rui Zhu [1] , Quanhua Liu [13]
[1]Key Laboratory of Electronic and Information Technology in Satellite Navigation(Beijing Institute of Technology), Ministry of Education, Beijing 100081 , China
[2]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing 314019, China
[3]Chongqing Innovation Center, Beijing Institute of Technology, Chongqing 401135, China

C0612 9:15 **AN EFFICIENT WAVEFORM DESIGN ALGORITHM FOR TRANSMIT ENERGY FOCUSING AND DOA ESTIMATION WITH COLOCATED MIMO RADAR**

Jiong Xiao [1] , Wenjun Wu [1] , Hai Wang [1] , Bo Tang [1*]
[1]College of Electronic Engineering, National University of Defense Technology, Hefei, China

C0894 9:30 **SUPER-RESOLUTION TARGET LOCALIZATION BY FUSING SIGNALS FROM MULTIPLE MIMO FMCW AUTOMOTIVE RADARS**

Jiadi Zhang, Jianping Wang, Alexander Yarovoy
Microwave Sensing, Signals and Systems (MS3)
Delft University of Technology (TU Delft), Delft, the Netherlands

Oral Session 17: Intelligent Optical Signal Processing

Time: 8: 00 – 10: 00, December 5, 2023
Place: Meeting Room 3
Chairs: Prof. Liheng Bian, Beijing Institute of Technology, China
Prof. Weifeng Zhang, Beijing Institute of Technology, China
Prof. Lawrence Chen, McGill University, Canada

8:00 **MICROWAVE PHOTONIC DISCRETE-FREQUENCY PROCESSING**
Yitang Dai
Beijing University of Posts and Telecommunications

8:15 **PHOTONIC GENERATION OF WIDEBAND RADAR WAVEFORMS BASED ON OPTOELECTRONIC OSCILLATOR**
Bin Wang
Beijing Institute of Technology

C0228 8:30 **SMSP INTERFERENCE SUPPRESSION METHOD BASED ON TIME-DOMAIN INTERFERENCE MATCHING**
Xiaoge WANG [1], Hui CHEN [1*], Yongzhe ZHU [1], Mengyu NI [1,2], Wei SHEN [1], Yiheng ZHOU [3], Ming HOU [1]
[1]Key Research Laboratory, Early Warning Academy, Wuhan, China
[2]Unit 93209 of the PLA, Beijing, China
[3]Unit 96943 of the PLA, Beijing, China

C0347 8:45 **ISING FORMULATION AND RECURRENT ALGORITHM FOR BINARY WEIGHT BEAMFORMING**
Shikang Li [1,2,3*] , Rentuo Tao [1,2,3] , Xianzhe xu [1,2,3] , Yawei Chen [1,2,3] , Yuhao Yang [1,2,3]
[1]Nanjing Research Institute of Electronics Technology, Nanjing, China
[2]Key Laboratory of IntelliSense Technology, CETC, Nanjing, China
[3]Jiangsu Provincial Key Laboratory of Detection and Perception Technology, Nanjing, China

C0914 9:00 **SPACE TARGET IMAGE DEBLURRING VIA ADAPTIVE MOTION KERNEL LEARNING**
Zhou Zhixing, Yang Zhixiong, Jing-Yuan Xia*, and Shuanghui Zhang
College of Electronic Science National University of Defense Technology,
109 Deya Road Kaifu District, Changsha, China

D0459 9:15 **ACCURACY AND INFLUENCING FACTORS ANALYSIS OF TREE HEIGHT EXTRACTION FOR DIFFERENT TREE SPECIES BASED ON UAV REMOTE SENSING**
Yan Li [1] , Lv Zhou [1,2*] , Bangding Wei [1]
[1]College of Geomatics and Geoinformation, Guilin University of Technology, Guilin, China
[2]Hubei LuoJia Laboratory, Wuhan, China

F0078 9:30 **AN IMPROVED FMCW SYNTHETIC APERTURE LADAR IMAGING ALGORITHM**

Ruihua Shi [1,2] , Gen Sun [3] , Chong Song [1,2] , Maosheng Xiang [1,2] , Yinshen Wang [1*] , Bingnan Wang [1]
[1]Aerospace Information Research Institute, Chinese Academy of Sciences, Beijing 100094, China
[2]University of Chinese Academy of Sciences, Beijing 100049, China
[3]Shanghai Aerospace Electronic Technology Institute, Shanghai 201109, China

F0160 9:45 **FREQUENCY-CONVERTED INJECTION-LOCKED OPTOELECTRONIC OSCILLATOR BASED ON DELAY MATCHING**

Zhihao Tang[1] , Di Peng [1,2,3*] , Songnian Fu [1,2,3] , Yuwen Qin [1,2,3]
[1]Institute of Advanced Photonics Technology, School of Information Engineering, Guangdong University of Technology, Guangzhou, China
[2]Key Laboratory of Photonic Technology for Integrated Sensing and Communication, Ministry of Education of China, Guangdong University of Technology, Guangzhou, China
[3]Guangdong Provincial Key Laboratory of Information Photonics Technology, Guangdong University of Technology, Guangzhou, China

Oral Session 18: Advanced Radar Target Tracking and Recognition Algorithm

Time: **8: 00 – 10: 00, December 5, 2023**
Place: **Meeting Room 5**
Chairs: **Dr. Huayu Fan, Beijing Institute of Technology, China**
Dr. Shaoqiang Chang, Beijing Institute of Technology, China
Prof. Yinghui Quan, Xidian University, China

8:00 **MULTI-FRAME DETECTION AND TRACKING FOR RADAR LOW OBSERVABLE TARGETS**

Wei Yi
University of Electronic Science and Technology of China

8:15 **RESEARCH ON RADAR DETECTION OF HYPERSONIC TARGET**

Jibin Zheng
Xidian University

D0338 8:30 **MULTI-VIEW SAR TARGET RECOGNITION BASED ON MODIFIED CONVOLUTIONAL RANDOM VECTOR FUNCTIONAL LINK NETWORK**

Qijun Dai [1] , Weiyong Tong [2] , Gong Zhang [1*] , Biao Xue [1] , Su Liu [3]
[1]Key Laboratory of Radar Imaging and Microwave Photonics, Ministry of Education, Nanjing University of Aeronautics and Astronautics, Nanjing, China
[2]Nanjing Marine Radar Institute, No. 30, Changqing Street, Nanjing, China
[3]School of Software Engineering, Chongqing University of Posts and Telecommunications
Chongqing, China.

C0384 **DISTRIBUTED JOINT SENSOR REGISTRATION AND**
8:45 **RESOLVABLE-GROUP TARGET TRACKING BASED ON HYPERGRAPH MATCHING THEORY**

Guchong Li [1] , Gang Li [2*] , You He [2,3]
[1]School of Automation, Northwestern Polytechnical University, Xi'an, China
[2]Department of Electronic Engineering, Tsinghua University, Beijing, China
[3]Institute of Information Fusion, Naval Aviation University, Yantai, China

C0440 **DRP CLASSIFIER FOR MULTI-CLASS TARGET RECOGNITION**
9:00

Guojian Yang, Han Lei *
School of Mechatronical Engineering, Beijing Institute of Technology, Beijing, China

C0599 **IMPROVING PERFORMANCE WITH FEATURE ENHANCEMENT AND**
9:15 **RANKING CONSTRAINTS FOR RADAR-BASED HUMAN ACTIVITY RECOGNITION**

Yi Zhou, [1,2,3,5] , Miguel López-Benítez [5] , Limin Yu [2*] , Yutao Yue [134*]
[1]Institute of Deep Perception Technology, JITRI, Wuxi 214000, China
[2]School of Advanced Technology, Xi'an Jiaotong-Liverpool University, Suzhou 215123, China
[3]XJTLU-JITRI Academy of Industrial Technology, Xi'an Jiaotong-Liverpool University, Suzhou 215123, China
[4]Department of Mathematical Sciences, University of Liverpool, Liverpool L69 7ZX, UK
[5]Department of Electrical Engineering and Electronics, University of Liverpool, Liverpool L69 7ZX, UK

C0729 **COMBINED CORNER REFLECTOR ARRAY INTERFERENCE**
9:30 **RECOGNITION BASED ON IMPROVED TCN AND DGRU**

Yunzhu Wang [1,2] , Xiaoying Deng [1,2] , Jian Dong [1,2,*] ,
Zhichun Zhao [1,2] , Yang Liu [3] , Xiongjun Fu [1,2,**]
[1]School of Integrated Circuits and Electronics, Beijing Institute of Technology, 100081,Beijing, China
[2]Tangshan Research Institute of BIT, 063015, Tangshan, Hebei, China
[3]Beijing Institute of Remote Sensing, 100854, Beijing, China

C0984 **AN INTERFERENCE SUPPRESSION ALGORITHM BASED ON**
9:45 **TIME-FREQUENCY FEATURES**

Lining Duan [1,2,3], Yaojun Wu [1,2,3], Ningjie Xiao [1,2,3], Benwang Peng [1,2,3] ,
Yinghui Quan [1,2,3*]
[1]School of Electronic Engineering, Xidian University, Xi'an 710071, China;
[2]Xi'an Key Laboratory of Advanced Remote Sensing, Xi'an 710071, China;
[3]Key Laboratory of Collaborative Intelligence Systems, Ministry of Education, Xidian University, Xi'an 710071, China;

Oral Session 19: Spaceborne SAR System and Signal Processing

Time: **10: 15 – 12: 15, December 5, 2023**
Place: **Liangjiang Grand Ballroom 3**
Chairs: **Assoc. Prof. Carlos López-Martínez, Universitat Politècnica de Catalunya, Spanish**
Prof. Fan Zhang, Beijing University of Chemical Technology, China
Assoc. Prof. Yan Wang, Beijing Institute of Technology, China

10:15 **SPACEBORNE SAR IMAGING OF SHIP TARGET WITH COMPLEX MOTIONS**
Yong Wang
Harbin Institute of Technology

10:30 **IMAGE QUALITY ENHANCEMENT FOR HIGH-RESOLUTION SPACEBORNE SAR WITH AZIMUTHAL MULTIPLE ANGLE OBSERVATION**
Jie Chen
Beihang University

10:45 **SPACEBORNE SPARSE SAR MODE DESIGN AND PERFORMANCE ANALYSIS**
Hui Bi
Nanjing University of Aeronautics and Astronautics

11:00 **RESEARCH ON KEY TECHNOLOGIES OF REFINED PROCESSING OF SAR SATELLITE OCEAN OBSERVATION DATA**
Bing Han
Aerospace Information Research Institute, Chinese Academy of Sciences

11:15 **SPACEBORNE SAR TERRAIN MATCHING CURVED IMAGING**
Yan Wang
Beijing Institute of Technology

11:30 **PHYSICAL SCATTERING MECHANISM BASED CLASSIFICATION FOR SPACE-BORNE SAR IMAGES**
Junjun Yin
University of Science and Technology Beijing

11:45 **NEW SPACEBORNE SYSTEM DETECTION TECHNOLOGY FOR TWO-DIMENSIONAL OCEAN SURFACE VELOCITY VECTORS MEASUREMENT**
Lei Liu
Institute of Remote Sensing Satellites (IRSS) of the China Academy of Space Technology (CAST)

12:00 **DEVELOPMENT AND REFLECTION ON SPACE-BASED INSAR**
Aifang Liu
Nanjing Research Institute of Electronics Technology

Oral Session 20: Surface Deformation Monitoring Systems and Signal Processing

Time: 10: 15 – 12: 15, December 5, 2023
Place: VIP Reception Room
Chairs: Assoc. Prof. Feifeng Liu, Beijing Institute of Technology, China
Assoc. Prof. Ling Chang, University of Twente, The Netherlands

10:15 **LONG-TIME COHERENT INTEGRATION AND MOTION PARAMETERS ESTIMATION OF RADAR MANEUVERING WEAK TARGET**
Qilei Zhang
National University of Defense Technology

D0212 **INSAR PHASE UNWRAPPING METHOD BASED ON NEURAL NETWORK**
10:30 **AND NESTEROV ACCELERATED GRADIENT OPTIMIZATION**
Yuejuan Chen [1,2] , Cong Ding [1,2] , Pingping Huang [1,2*] , Siai Du [1,2] , Yaolong Qi [1,2] , Weixian Tan [1,2] , Wei Xu [1,2] , Bo Yin [2,3]
[1]College of Information Engineering, Inner Mongolia University of Technology, Hohhot 010080, China
[2]Inner Mongolia Key Laboratory of Radar Technology and Application, Hohhot 010051, China
[3]College of Resource and Environmental Engineering, Inner Mongolia University of Technology, Hohhot 010051, China

A802 **HIERARCHICAL ADAPTIVE GATE ARRAY-BASED KALMAN FILTER**
10:45 **FOR MULTISENSOR INTEGRATED NAVIGATION SYSTEM**
Zihuan Hao[1,2], Jian Li[1,3*], Ruiqi Cheng[1,3], Jieqiong Wu[1,2], Si Sun[1,2]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Key Laboratory of Electronic and Information Technology in Satellite Navigation (Beijing Institute of Technology), Ministry of Education, Beijing, China
[3]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, China

C0810 **DESIGN AND IMPLEMENATION OF GNSS-INBSAR REAL-TIME**
11:00 **PREPROCESSING SYSTEM BASED ON SOC**
Liang Chen [1,3] , Jian Li [1,2*] , Xiaozhi Li [1,2] , Jieqiong Wu [1,2] , Dongqing Yang [1,3]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Key Laboratory of Electronic and Information Technology in Satellite Navigation(Beijing Institute of Technology), Ministry of Education, Beijing, China
[3]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, China

D0257 **EVALUATION OF THE DEFORMATION MEASUREMENT EFFICACY OF**
11:15 **GNSS-BASED INBSAR IN VEGETATED AREAS: TRIALS INITIATION**
X i i yue Zeng [12] , Feifeng Liu [12*] , Di Yao [1] , Jiahao Gao [12] , Zhixiang Xu [12]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Key Laboratory of Electronic and Information Technology in Satellite Navigation (Beijing Institute of Technology), Ministry of Education, Beijing 100081, China

D0398 **AN AUTOFOCUS FRAMEWORK BASED ON COMBINATION OF**
11:30 **PARA-METRIC AND NONPARAMETRIC METHODS FOR STRIPMAP SAR**
Fatong Zhang, Yaowen Fu *, Wei Yang, Wenpeng Zhang, Ruofeng Yu, Shangqu Yan
College of Electronic Science and Technology, National University of Defense Technology , Changsha, China

F0838 **A MAP CONSTRUCTION AND MAINTENANCE FRAMEWORK FOR**
11:45 **LONG-TERM NAVIGATION BASED ON LIDAR**
Ruiqi Cheng [1,2] , Jian Li [1,2 *] , Fei Guo [1,2] , Zihuan Hao [1,2] ,
Jieqiong Wu [1,2] , Dongqing Yang [3]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China
[2]Key Laboratory of Electronic and Information Technology in Satellite Navigation (Beijing Institute of Technology), Ministry of Education, Beijing 100081, China
[3]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan 250300, China

D0252 **PRELIMINARY RESULTS OF GNSS-INBSAR DEFORMATION**
12:00 **RETRIEVAL USING BEIDOU MEO REPEATED-ORBIT SEQUENCE**
Chenghao Wang1,2, Feifeng Liu1,2*, Runze Shang1,2, Xiyue Zeng1,2, Cheng Hu1,2
1Radar Research Laboratory, School of Information and Electronics, Beijing Institute of Technology, 100081,Beijing, China
2Key Laboratory of Electronic and Information Technology in Satellite Navigation (Beijing Institute of Technology), Ministry of Education, 100081, Beijing, China

Oral Session 21: Advanced SAR Imaging and Target Recognition using Intelligent Technology

Time: **10: 15 – 12: 15, December 5, 2023**
Place: **Meeting Room 1**
Chairs: **Assoc. Prof. Gang Xu, Southeast University, China**
Prof. Guangcai Sun, Xidian University, China
Dr. Linqing Luo, Lawrence Berkeley National Laboratory, USA

10:15 **HYBRID SPARSE SAR IMAGING ALGORITHM**
Zhiqi Gao
Inner Mongolia University of Technology

10:30 **EXPLORATION OF ADVANCED SAR IMAGING MODES**
Wensheng Chang
Nanjing Research Institute of Electronics Technology

10:45 **AN ACCURATE PROCESSING FRAMEWORK FOR AIRBORNE VERY-HIGH-RESOLUTION STRIPMAP SAR: MOTION COMPENSATION AND ESTIMATION**
Zhen Dong
National University of Defense Technology (NUDT)

11:00 **REFOCUSING SPATIAL-VARIANT DEFOCUSED SAR IMAGES OF 3D SWING SHIPS**
Xiangguang Leng
College of Electronic Science and Technology, National University of Defense Technology

C0019 **AN ADDITION NETWORK WITH RESNET FOR FINE-GRAINED VISUAL**
11:15 **CLASSIFICATION IN SAR IMAGES**
Hongren Chen [1*] , Daiyin Zhu [1] , Di Wu [1] , Jiawei Huang [1] , Jiming lv [1]
[1]College of Electronic and Information Engineering, Nanjing University of Aeronautics and Astronautics, Nanjing, China

C0108 **A SELF-SUPERVISED CONTRASTIVE LEARNING METHOD FOR**
11:30 **OUT-OF-DISTRIBUTION DETECTION IN SAR IMAGES**
Mingyao Chen [1] , Jingyuan Xia [1] , Tianpeng Liu [1*] , Yongxiang Liu [1]
[1]National University of Defense Technology College of Electronic Science Changsha, Hunan, China

C0431 **APPLICATION OF SWIN TRANSFORMER FOR SAR ATR UNDER LIMITED**
11:45 **TRAINING DATA**
Siyi Luo, Chenwei Wang, Yulin Huang, Jifang Pei, Weibo Huo, Yin Zhang, Haiguang Yang, and Jianyu Yang
School of Information and Communication Engineering
University of Electronic Science and Technology of China , Chengdu, China

D0644 **DATA-DRIVEN SAR IMAGE RECONSTRUCTION METHOD USING ADMM**
12:00 **WITH DEEP PLUG-AND-PLAY PRIORS**
Ziwen Wang [1 *] , Yangkai Wei [1] , Zegang Ding [1,2] ,Xueting Shan [1] ,Yifan Wu [1]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Beijing Key Laboratory of Embedded Real-Time Information Processing Technology, Beijing, China

Oral Session 22: LuTan-1: Processing and Applications

Time: **10: 15 – 12: 15, December 5, 2023**
Place: **Meeting Room 2**
Chairs: **Dr. Tao Li, Land Satellite Remote Sensing Application Center, Ministry of Natural Resources, China**
Prof. Yongsheng Li, National Institute of Natural Hazards, Ministry of Emergency Management of China, China
Dr. Yanyang Liu, Shanghai institute of satellite engineering, China

G669 **DEFORMATION FIELD PRODUCTS GENERATED USING LU TAN-1**
10:15 **OVER CHINA**
Tao Li [1] , Xinming Tang [1*] , Xiang Zhang [1] , Xuefei Zhang [1] ,
Jing Lu [1] , Tan Li [2,1] , Xiaofeng Qiu [2,1]
[1]Land Satellite Remote Sensing Application Center, MNR, Beijing, China
[2]Beijing SatImage Information Technology Co., Ltd, Beijing, China

D0910 10:30 **DYNAMIC MONITORING OF MINING SUBSIDENCE USING LT-1DINSAR DATA IN DATONG**

Liuru Hu [1,2,3] , Xinming Tang [2] , Roberto Tomás [1] , Tao Li [2*] , Jing Lu [2] , Xiang Zhang [2] , Xuefei Zhang [2] , Tan Li [2] , Dongxia Fu [3]
[1]Dpto. de Ingeniería Civil, Escuela Politécnica Superior de Alicante, Universidad de Alicante, Alicante, Spain.
[2]Land Satellite Remote Sensing Application Center (LASAC), Ministry of Natural Resources of P.R. China, Beijing, China.
[3]The First Topographic Surveying Brigade of the Ministry of Natural Resources of the People's Republic of China, Xi'an 710054, China.

D0987 10:45 **THE FIRST DEMONSTRATION OF DEM GENERATION USING STEREO SAR TECHNIQUE WITH ASCENDING AND DESCENDING LUTAN-1 SAR DATA**

Kui Liu [1] , Changcheng Wang [1*] , Bei An [1] , Huacan Hu [1] , Jie Wan [1]
[1]the School of Geosciences and Info-Physics, Central South University, Changsha, China

A0657 11:00 **FIRST STUDY OF LT-1 SAR SATELLITE FOR ROCK GLACIER DEFORMATION MONITORING OVER TIBETAN PLATEAU PREGLACIAL ENVIRONMENT**

Xuefei Zhang [1] , Tao Li [1] , Xiang Zhang [1] , Xiaoqing Zhou [1] , Jing Lu [1] , Liuru Hu [1] , Xueguang Zhang [2*]
[1]Land Satellite Remote Sensing Application Center, Ministry of Natural Resources, Beijing, China.
[2]Yunnan Construction Investment First Survey Design Co. Ltd., Kunming, China.

C0878 11:15 **AZIMUTH AMBIGUITY SUPPRESSION FOR SINGLE LOOK COMPLEX IMAGE BASED ON BLOCK SPARSE REPRESENTATION**

Jieshuang Li [1] , Mingliang Tao [*1] , Tao Li [2] , Chuheng Tang [3] , Yanyang Liu [3] , Ling Wang [1]
[1]Northwestern Polytechnical University, Xi'an, China, 710072
[2]The Land Satellite Remote Sensing Application Center, Ministry of Natural Resources of P.R. China, Beijing, China, 100048
[3]Shanghai Satellite Engineering Institute, Shanghai, China, 201108

D0829 11:30 **QUALITY VALIDATION OF L-BAND SAR IMAGERY BASED ON POINT AND DISTRIBUTED TARGETS**

Huijuan Li, Heng Zhang [*] , Qi Chen, Yongpeng Gao, Xiaoyu Shi, Lifeng Zhang
China Siwei Surveying and Mapping Technology Co.,Ltd, Beijing , China

D0947 11:45 **LANDSAR SOFTWARE TESTING METHOD FOR LU TAN-1 SAR STANDARD PRODUCT GENERATION IN NATURAL RESOURCE MONITORING**

Jing Lu [1] , Xiaoqing Zhou [1] , Tao Li [1] , Xiang Zhang [1] , Xuefei Zhang [1] , Tan Li [2] , Xiaofeng Qiu [2] , Liuru Hu [1,3]
[1]Land Satellite Remote Sensing Application Center, MNR, China
[2]Beijing SatImage Information Technology Co.,Ltd., Beijing 100048, China
[3]Universidad de Alicante, Spain

G064 **STUDY ON TIMELINESS EXTERNAL DEM FOR OPEN-PIT MINING AREA**
12:00 **DEFORMATION MONITORING USING LUTAN-1 SAR DATA**
Xiang Zhang [1*] , Xinming Tang [1] , Tao Li [1] , Hui Zhao [2] , Xiaoqing Zhou [1] , Yaozong Xu [1] , Xuefei Zhang [1]
[1]Land Satellite Remote Sensing Application Center, MNR, Beijing, China
[2]National Geomatics Center of China

Oral Session 23: Through the Medium Sensing and Applications

Time: **10: 15 – 12: 15, December 5, 2023**
Place: **Meeting Room 3**
Chairs: **Assistant Prof. Xiaolu Zeng, Beijing Institute of Technology, China**
Prof. Guolong Cui, University of Electronic Science and Technology of China, China
Prof. Youngwook Kim, Sogang University, Korean

10:15 **LIFE SAFETY IS PROTECTED BY SCIENCE AND TECHNOLOGY——MICRO-POWER ULTRA-WIDEBAND RADAR LIFE DETECTION TECHNOLOGY, EQUIPMENT AND ACHIEVEMENT TRANSFORMATION**
Buge Liang
School of Automation, Central South University

10:30 **NLOS TARGETS DETECTION WITH RADAR**
Guolong Cui
University of Electronic Science and Technology of China

10:45 **SMART SENSING IN NLOS ENVIRONMENT**
Xiaolu Zeng
Beijing Institute of Technology

A0103 **DISTRIBUTED WIRELESS RADAR SYSTEM WITH APPLICATION TO**
11:00 **THROUGH THE WALL RADAR**
Yaxin Mu [1,2] , Xin Liu [3*] , Shengbo Ye [4] , Haibin Zhu [1,2]
[1]School of Information and Communication Engineering, Beijing Information Science and Technology University, Beijing 100101, China
[2]Key Laboratory of the Ministry of Education for Optoelectronic Measurement Technology and Instrument, Beijing 100101, China
[3]State Key Laboratory of Space-Ground Integrated Information Technology, Beijing Institute of Satellite Information Engineering, Beijing, 100095, China
[4]Key Laboratory of Electromagnetic Radiation and Detection Technology, Aerospace Information Research Institute, Chinese Academy of Sciences, Beijing 100190, China

C0498 **REBAR CLUTTER SUPPRESSION METHOD BASED ON WEIGHTED**
11:15 **NUCLEAR NORM MINIMIZATION WITH RANDOM SVD**
Ding Zhang [1,2,3] , Yi Zhao [1] , Haoyu Meng [1] , Xiaodong Qu [1*] , Xiaopeng Yang [1,2,3]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Key Laboratory of Electronic and Information Technology in Satellite Navigation (Beijing Institute of Technology), Ministry of Education,Beijing, China
[3]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing, China

C0664 **HUMAN TARGET TRACKING METHOD BASED ON KERNELIZED**
11:30 **CORRELATION FILTER AND INTERACTIVE MULTIPLE MODEL**
Zeyu Ma [1,2] , Ding Zhang [1,2] , Shengshui Wang [3] , Xiaodong Qu [1*] , Xiaopeng Yang [1,2]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing, China
[3]Novasky Technology Company Limited by Shares, Changsha, China

G866 **BUILDING STRUCTURE RECONSTRUCTION WITH UAV-BORNE**
11:45 **THROUGH-WALL RADAR**
Xi Zhang [1, 2] , Shichao Zhong[1, 2*] , Xiaopeng Yang [1, 2] , Liangyong Tang[3]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing, China
[3]Novasky Technology Company Limited by Shares, Changsha, China

G879 **WALL CLUTTER SUPPRESSION FOR THROUGH-WALL RADAR ON**
12:00 **HOVERING DRONE**
Yaru Shang [1,2] , Shichao Zhong [1,2*] , Xiaopeng Yang [1,2] , Yugui He [3]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing, China
[3]Novasky Technology Company Limited by Shares, Changsha, China

Oral Session 24: Integrated Sensing and Communication

Time: **10: 15 – 12: 15, December 5, 2023**
Place: **Meeting Room 5**
Chairs: **Prof. Le Zheng, Beijing Institute of Technology, China**
Prof. Zesong Fei, Beijing Institute of Technology, China

C0158 **SPARSE SPECTRUM APERIODIC WAVEFORM DESIGN BASED ON**
10:15 **RIEMANNIAN MANIFOLD OPTIMIZATION**
Ruofeng Yu [1] , Dan Li [2] , Wei Yang [1] , Yaowen Fu [1] , Mengdi Bai [1]
[1]College of Electronic Science and Technology, National University of Defence Technology, Changsha, China
[2]National Innovation Institute of Defence Technology; Academy of Military Science; Beijing; China

C0375 **WAVEFORM DESIGN FOR INTEGRATED SENSING AND**
10:30 **COMMUNICATION IN THE PRESENCE OF DRFM FORWARDING INTERFERENCE**
Yu Zhou [1] , Qiao Shi [2*] , Zhengchun Zhou [2] , Yang Yang [1]
[1]The School of Mathematics, Southwest Jiaotong University, Chengdu, China
[2]The School of Information Science and Technology, Southwest Jiaotong University, Chengdu, China

F0190 **JOINT DESIGN OF TRANSMIT WAVEFORM AND RECEIVE FILTER FOR**
10:45 **DUAL-FUNCTION RADAR-COMMUNICATION SYSTEMS**
Congyue Jia[1], Hongtao Su[1 *]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, China

F0288 **COOPERATIVE POWER ALLOCATION FOR RADAR AND**
11:00 **COMMUNICATION BASED ON FIXED CONDITION OPTIMIZATION**

Jie Tao[1] , Zhenkai Zhang[*1] , , Boon-Chong Seet [2] , Xiaoke Shang [1]
[1]College of Ocean, Jiangsu University of Science and Technology, Zhenjiang, China
[2]Department of Electrical & Electronic Engineering , Auckland University of Technology, Auckland, New Zealand

F0469 **INTEGRATED SENSING AND COMMUNICATION SYSTEM BASED ON**
11:15 **BOK-SLFM SIGNAL**

Feifan Zhao [1] , Chen Miao [1*] , Wentao Zhang [1] , Yue Ma [1] ,Wen Wu [1]
[1]Key Laboratory of Near-Range RF Sensing ICs & Microsystems, Nanjing University of Science and Technology, Nanjing , China

F0639 **PARAMETERS DECOUPLING AND ESTIMATION IN FRAC SYSTEM**
11:30

Mengjiang Sun [1] , Peng Chen [1*] , and Zhenxin Cao [1]
[1]State Key Laboratory of Millimeter Waves, Southeast University, Nanjing 210096, China

F0913 **JOINT LOCATION DESIGN AND RESOURCE ALLOCATION FOR**
11:45 **INTEGRATED SENSING AND SEMANTIC COMMUNICATION**

Yuanhao Cui [1] , Weijie Yuan [1] , Sijie Ji [2*] , Hongming Zhang [3] , Fan Liu [1] , Zhaohui Yang [4] , and Zhouyi Wu [5]
[1]Southern University of Science and Technology, Shenzhen, China
[2]The University of Hong Kong, Hongkong, China
[3]Beijing University of Posts and Telecommunications, Beijing, China
[4]Zhejiang University, Hangzhou, China
[5]Zhejiang Lab, Hangzhou, China

Oral Session 25: Aerial Migration Observation Technologies and Applications

Time: **13: 00 – 15: 00, December 5, 2023**
Place: **VIP Reception Room**
Chairs: **Assoc. Prof. Rui Wang, Beijing Institute of Technology, China**
Prof. Weiming Tian, Beijing Institute of Technology, China

C0081 **A NEW FRAMEWORK FOR EXTRACTING AND USING POLARIZATION**
13:00 **INFORMATION FROM FULLY POLARIZED ENTOMOLOGICAL RADAR**

Muyang Li [1,2] , Sheng Liu [1,2,3] , Rui wang [1,2,3*] , Cheng Hu [1,2,3]
[1]The Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China
[2]The Key Laboratory of Electronic and Information Technology in Satellite Navigation, Beijing Institute of Technology, Ministry of Education, Beijing 100081, China
[3]The Advanced Technology Research Institute, Beijing Institute of Technology, Jinan 250300, China

C0488 **A TRACK ASSOCIATION ALGORITHM BASED ON MOTION DYNAMICS**
13:15 **FEATURES IN ENTOMOLOGICAL RADAR**

Biao Li [1,2,3] , Hanzhe Liu[1,2,3] , Tianran Zhang[4] , Jiong Cai [1,3] and Rui Wang[1,2,3*]
[1]The Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China
[2]The Advanced Technology Research Institute, Beijing Institute of Technology, Jinan 250300, China
[3]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing 100081, China
[4] Beijing Institute of Electronic System Engineering, Beijing 100854,China

C0502 **IMPROVED CARDINALIZED PROBABILITY HYPOTHESIS DENSITY**
13:30 **FILTER FOR MULTITARGET TRACKING USING FORMATION PRIORS**

Qi Jiang [1*] , Jichuan Zhang [1] , Na Ni [1] , Rui Wang [123] , Cheng Hu [123]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, Shandong, China
[3]Beijing Key Laboratory of Real-time Information Processing Technology of Embedded, Beijing 100081, China

G066 **A BIOLOGICAL ECHO IDENTIFICATION METHOD WITH SINGLE**
13:45 **POLARIZED WEATHER RADAR USING SUPER-PIXEL SEGMENTATION**

Zujing Yan [1,2,4] , Kai Cui [1,3,5] , Jingmin Zhang [2] , Rui Wang [1,4*] , Cheng Hu [1,4] , Jiaxing Liu [2] ,Duo Zhang [2] , Zhuoran Sun [1,4] , Huafeng Mao [1,4]
[1]Radar Research Laboratory, School of Information and Electronics, Beijing Institute of Technology, Beijing, China, 100081
[2]No. 208 Research Institute of China Ordnance Industries, Beijing, China, 100081
[3]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, China, 250300
[4]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Radar Research
Laboratory, School of Information and Electronic, Beijing Institute of Technology, Beijing, China, 100081
[5]School of Computer Sciences, Beijing Institute of Technology, Beijing, China, 100081

G229 **EXPERIMENTAL VALIDATIONS OF INSECT SPECIES IDENTIFICATION**
14:00 **BASED ON FULLY-POLARIMETRIC RADAR MEASUREMENTS**

Fan Zhang [1,3] , Weidong Li [1,2,3*] , Rui Wang [1,2,3] , Jiangtao Wang [1,3] , Zhibo Zhang [1,3] , Cheng Hu [1,2,3] , Wenhua Yu [4]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, Shandong, China
[3]Key Laboratory of Real-Time Information Processing Technology of Embedded (Beijing Institute of Technology), Ministry of Education, Beijing, China
[4]Institute of Insect Sciences, College of Agriculture and Biotechnology, Zhejiang University, Hangzhou, China

G331 **A DYNAMIC SHORT-RANGE ANIMAL MIGRATION FORECAST MODEL**
14:15 **BASED ON WEATHER RADAR NETWORK**

Xuan Liu [1,3] , Kai Cui [1,2,4*] , Cheng Hu [1,3] , Rui Wang [1,3] , Huafeng Mao [1,3] , Dongli Wu [5]
[1]Radar Research Laboratory, School of Information and Electronics, Beijing Institute of Technology, Beijing, China, 100081
[2]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, China, 250300
[3]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing, China, 100081
[4]School of Computer Sciences, Beijing Institute of Technology, Beijing, China, 100081
[5]Meteorological Observation Centre of China, Meteorological Administration, Beijing, China, 100081

G360 **EXPERIMENTAL VALIDATIONS OF INSECT 3D ORIENTATION**
14:30 **EXTRACTION BASED ON COOPERATIVE OBSERVATION FROM TWO VIEWS OF ENTOMOLOGICAL RADARS**

Jiangtao Wang [1] , Weidong Li [1,2*] , Rui Wang [1,2] , Muyang Li [1] , Fan Zhang [1] , Cheng Hu [1,2]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing, People's Republic of China
[2]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, People's Republic of China

G495 **ROBUST JOINT ASSOCIATION AND REGISTRATION UNDER LARGE**
14:45 **SENSOR BIAS**

Na Ni [1] , Qi Jiang [1*] , Huafeng Mao [1] , Jichuan Zhang [1] , Rui Wang [123] , Cheng Hu [123]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Advanced Technology Research Institute , Beijing Institute of Technology, Jinan, Shandong, China
[3]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing, China

Oral Session 26: Radar Imaging, Processing and Image Interpretation with Knowledge Guided Deep Learning Approaches

Time: **13: 00 – 15: 00, December 5, 2023**
Place: **Gaoke Junior Ballroom 1**
Chairs: **Prof. Mihai Dutcu, DLR, German**
Assoc. Prof. Zhongling Huang, Northwestern Polytechnical University, China
Prof. Zhe Zhang, AIR, CAS, China

13:00 **DOA ESTIMATION USING SPARSE ARRAYS: NONASYMPTOTIC THEORY AND ROBUST ALGORITHM**

Zai Yang
Xi'an Jiaotong University

13:15 **DEEP LEARNING BASED SAR SHIP DETECTION UNDER SEMI-SUPERVISION OR UNSUPERVISION**

Lan Du
Xidian University

13:30 **3D IMAGING PROCESSING TECHNOLOGY OF SMALL UAV ARRAY INSAR BASED ON MICROWAVE VISION**
Xiaolan Qiu
Aerospace Information Research Institute, Chinese Academy of Sciences

13:45 **INTELLIGENT SAR IMAGE INTERPRETATION IN COMPLEX SCENES: KEY TECHNOLOGY AND APPLICATION METHODS**
Xian Sun
Aerospace Information Research Institute, Chinese Academy of Sciences

14:00 **RADAR SENSING IN ASSISTED LIVING: AN OVERVIEW**
Julien Le Kernec
University of Glasgow

C0456 14:15 **GAUSSIAN DISTRIBUTION REPRESENTATION BASED KNOWLEDGE DISTILLATION METHOD FOR ORIENTED SAR SHIP DETECTION**
Fengyu Tong [1] , Jian Kang [1*] , Xi Chen [1]
[1]School of Electronic and Information Engineering, Soochow University,215006, Suzhou, China

E0690 14:30 **SFDFNET: SINGLE-PATH FEATURE DEEP FUSION NETWORK FOR FAST SEMANTIC SEGMENTATION OF SAR IMAGES IN BUILDING AREAS**
Wenyi Zhang [1,2*] ,Xiangyu Dai [1,2,3] ,Qingwei Chu [1,2] ,Jiande Zhang [4] ,
Hao Ding [1,2] ,Guangzuo Li [1,2]
[1]Aerospace Information Research Institute, Chinese Academy of Sciences, Beijing, China
[2]Key Laboratory of Technology in Geo-Spatial Information Processing and Application System, Chinese Academy of Sciences, No. 9 Dengzhuang South Road, Beijing, China
[3]School of Electronic, Electrical and Communication Engineering, University of Chinese Academy of Sciences, No. 19 Yuquan Road, Beijing, China
[4]QiLu Aerospace Information Research Institute, No. 44 Industry North Road, Jinan, China

D0366 14:45 **SAR TARGET DISCRIMINATION BASED ON THE ENSEMBLE PROJECTION FEATURE**
Dan Li [1] , Yan Wang [2] , Yong Li [1]
[1] School of Electronics and Information ,N orthwestern Polytechnical University, Xi'an, China
[2] AVIC Leihua Electronic Technology Research Institute, Wuxi, China

Oral Session 27: Bistatic/Multitatic Synthetic Aperture Radar

Time: **13: 00 – 15: 00, December 5, 2023**
Place: **Meeting Room 1**
Chairs: **Prof. Junjie Wu, University of Electronic Science and Technology of China, China**
Dr. Zhichao Sun, University of Electronic Science and Technology of China, China

D151 **TARGET SHADOW PROFILE RETRIEVAL FROM FSSR USING LEO**
13:00 **SATELLITES AS ILLUMINATORS OF OPPORTUNITY**
Xi Shen, Defeng (David) Huang *
Department of Electrical, Electronic and Computer Engineering, The University of Western Australia, Perth, 6009, Australia

D0833 **ANALYSIS OF SEA SURFACE VELOCITY VECTOR INVERSION ERROR**
13:15 **BASED ON MULTI-STATIC ATI-SAR**
Huancheng Guo [1] , Zhibin Wang [2] , JiaHan Lou [1] , Lei Liu [2] , Fanyi Tang [1] , Xuemao Li [1] , Qi Zhang [1] , Zhenfang Li [1*] , Qingjun Zhang [2]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi ' an , China
[2]Country Institute of Remote Sensing Satellite, China Academy of Space Technology, Beijing, China;

A0290 **A KNOWLEDGE-ASSISTED SPACE-TIME SPECTRUM COMPENSATION**
13:30 **METHOD FOR BISTATIC ARRAY RADAR CLUTTER**
Chunyu Yu [1,2] , Min Tian [1*] , Guisheng Liao [1,2] , Yu Li [3]
[1]Hangzhou Institute of Technology, Xidian University, Hangzhou, China
[2]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, China
[3]Xi'an Institute of Space Radio Technology and National Key Laboratory of Science and Technology on Space Microwave, Xi'an, China

A0777 **THE FUSION METHOD OF GB-MIMO RADAR IMAGES AND 3D POINT CLOUD**
13:45 **DATA BASED ON HIGH-PRECISION COORDINATE SYSTEM CONVERSION**
Congrong Han [1*] , Yuhan Wen [1] , Zengshuo Zhang [1] , Weiming Tian [2,3]
[1]Beijing Institute of Electronic System Engineering, Beijing, China
[2]Beijing Institute of Technology Chongqing Innovation Center, Chongqing 401120, China;
[3]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing 100081,China;

C0297 **A HIGH-EFFICIENCY PARTITIONED INTEGRATION METHOD FOR**
14:00 **GNSS-BASED PASSIVE RADAR MOVING TARGET DETECTION**
Tao Tang [1] , Pengbo Wang [1*] , Jie Chen [1] , Hongcheng Zeng [1]
[1]School of Electronics and Information Engineering, Beihang University, Beijing, China

D0362 **SAR TOMOGRAPHY IN URBAN AREAS: AN APPROACH BASED ON SPARSE**
14:15 **SPECTRUM FITTING**
Jian Zhao [1,2] , Zhen Wang [1,2*] , Zegang Ding [1,2,3] , Tao Sun [1,2] , Zhizhou Chen [1,2] , Haolong Chen [1,2] , Tao Zeng [1,2,3]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing 100081,China
[2]Beijing Key Laboratory of Embedded Real-Time Information Processing Technology, Beijing Institute of Technology, Beijing 100081, China
[3]Chongqing Innovation Center , Beijing Institute of Technology, Chongqing 401331, China

D0421 **DOPPLER STEERING METHOD BASED ON PITCH-YAW STEERING**
14:30 **SEQUENCE**
Xinzhi Yao [1*] Hongliang Lu [1] Jili Sun [1,2] Shuai Wang [1] Wen Sun [1]
[1]Qilu Aerospace Information Research Institute, Jinan 250000, China
[2]Aerospace Information Research Institute, Chinese Academy of Science, Beijing 100194, China

Oral Session 28: Advanced Radar Application: Geohazard Monitoring Technology

Time: 13: 00 – 15: 00, December 5, 2023
Place: Meeting Room 2
Chairs: Prof. Weiming Tian, Beijing Institute of Technology, China
Prof. Rui Zhang, Southwest Jiaotong University, China
Prof. Weixian Tan, Inner Mongolia University of Technology, China

13:00 **TECHNOLOGY AND APPLICATION OF CIRCULAR APERTURE MICRO-DEFORMATION MONITORING RADAR**
Weixian Tan
College of Information Engineering, Inner Mongolia University of Technology

13:15 **TIME-SERIES INSAR MONITORING OF ENGINEERING GEOLOGICAL HAZARDS IN SPECIAL SOIL SECTIONS OF RAILWAY CORRIDORS**
Rui Zhang
Southwest Jiaotong University

13:30 **A NOVEL PHASED ARRAY RADAR FOR GEOLOGICAL DISASTER MONITORING AND EARLY WARNING**
Weiming Tian
School of information and electronics, Beijing Institute of Technology

A0372 13:45 **ANALYSIS ON SPATIAL RESOLUTIONS OF LOW-FREQUENCY ULTRAWIDEBAND WIDE BEAMWIDTH SAR**
Xin Xie [1,4] , Jian Wang [2] , Yunkai Deng [3,4*] , Zhijun Yang [3] , Weiming Tian [1,5]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2] Beijing Building Research Institute Co., Ltd. of CSCEC, Beijing China
[3]Chongqing Innovation Center Beijing Institute of Technology, Chongqing, China
[4]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing China ;
[5]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan 250300, China;

A0744 14:00 **A MACHINE LEARNING BURNED AREA EXTRACTING METHOD BASED ON DUAL-POLARIZATION SENTINEL-1 IMAGES**
Age Shama [1] , Rui Zhang [1*] Xin Bao [1] , and Jichao Lv [1]
[1]Faculty of Geosciences and Environmental Engineering, Southwest Jiaotong University, Chengdu, China

D0822 14:15 **DEFORMATION INVERSION AND PREDICTION OF THE HONG KONG-ZHUHAI-MACAO BRIDGE (HZMB) COMBINING INSAR AND ARIMA-PF MODEL**
Xiaoqiong Qin [1] , Xiaotong Guo [1 *], Chisheng Wang [2] , Xuguo Shi [3] , Linfu Xie [4]
[1]School of Civil and Traffic Engineering & Underground Polis Academy, Shenzhen University, Shenzhen, China
[2]School of Architecture & Urban Planning, Shenzhen University, Shenzhen, China
[3]School of Geography and Information Engineering, China University of Geosciences, Wuhan, China
[4]Smart City Research Institute & School of Architecture and Urban Planning, Shenzhen University, China

G457 **MONITORING AND ANALYSIS OF LANDSLIDE HAZARDS IN THE**
14:30 **MIAOWEI RESERVOIR AREA OF THE LANCANG RIVER BASED ON TIME SERIES INSAR TECHNOLOGY**

Bangding Wei [1,2] , Jianxiong Lao [1] , Lv Zhou [1,2*] , Yan Li [1]
[1]College of Geomatics and Geoinformation, Guilin University of Technology, Guilin, China
[2] Hubei LuoJia Laboratory, Wuhan, China

G480 **AN IMPROVED METHOD FOR ROCKFALL DETECTION AND TRACKING**
14:45 **BASED ON VIDEO STREAM**

Longyue Wang [1] , Songge Wang [1] , Xin Xie [1] ,Yunkai Deng [1,2*] ,Weiming Tian [3,4]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Chongqing Innovation Center Beijing Institute of Technology, Chongqing, China
[3]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing Institute of Technology, Beijing, China
[4] Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, China

Oral Session 29: From LEO SAR to GEO SAR: System and Application

Time: **13: 00 – 15: 00, December 5, 2023**
Place: **Meeting Room 3**
Chairs: **Prof. Andrea Monti-Guarnieri, Politecnico di Milano, Italy**
Dr. Zhiyang Chen, Beijing Institute of Technology, China

F0021 **A HEURISTIC DETECTOR FOR FORWARD SCATTER RADAR WITH**
13:00 **OPPORTUNISTIC SIGNALS FROM LEO SATELLITES**

Defeng (David) Huang
Department of Electrical, Electronic and Computer Engineering
The University of Western Australia
35 Stirling Highway, Perth, WA 6009 Australia

A0804 **FIRST VALIDATION OF OCEAN CURRENT MEASUREMENT BY**
13:15 **ALONG-TRACK INTERFEROMETRY MODE OF LUOJIA-2 SATELLITE**

Weiya Kong [1] , Maoqiang Jin [2] , Dehua He [3] , Feng Xiao [1] , Yong Zhao [1] , Shuhang Wang [1] , Hanwei Sun [1*]
[1]Beijing Institute of Radio Measurement, Beijing 100039, China
[2]State Key Laboratory of information Engineering in Surveying, Mapping and Remote Sensing of Wuhan University, Wuhan, China
[3]Institute of Remote Sensing Satellites (IRSS) of the China Academy of Space Technology (CAST), Beijing,China

D0925 **SPACE-SURFACE BISTATIC SAR TOMOGRAPHY: A PROMISING**
13:30 **APPROACH FOR ACCURATE LOCAL 3D RECONSTRUCTION**

Zhiyang Chen[1,2*] , Yuanhao Li[1] , Cheng Hu[1] , Mihai Datcu[3]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan 250300, China
[3]CEOSpaceTech, University Politehnica of Bucharest, Bucharest 050663, Romania

C0005 **A NOVEL RANGE AND AZIMUTH SCALING TRANSFORM FOR SQUINT**
13:45 **SPOTLIGHT SAR IMAGING WITH DECHIRP-ON-RECEIVE**
Baomin Gu [1*] , Daiyin Zhu [1] , Cheng Chen [1] , Fangning Li [1]
[1]Nanjing University of Aeronautics and Astronautics, Nanjing, China

D0207 **A HIGH-PRECISION PLATFORM POSITIONING METHOD BASED ON**
14:00 **INSAR INTERFEROGRAM MATCHING**
Lanyu Li [1,2] , Yachao Wang [1*] , Bingnan Wang [1] , Maosheng Xiang [1]
[1]National Key Laboratory of Microwave Imaging Technology, Aerospace Information Research Institute, Chinese Academy of Sciences, Beijing 100190, China
[2]School of Electronic, Electrical and Communication Engineering, University of Chinese Academy of Sciences, Beijing 100049, China

D0696 **REFOCUSING OF MOVING SHIPS BASED ON DEEP LEARNING**
14:15 **FOR HIGH ALTITUDE PLATFORM SAR**
Jiacheng Yang [1] , Xichao Dong [2] , Chang Cui [2 *]
[1]Beijing Institute of Technology Chongqing Innovation Center, Chongqing, China
[2]School of Information and Electronics, Beijing Institute of Technology, Chongqing, China

F797 **GEOSYNCHRONOUS SAR 3-D TARGET RECONSTRUCTION BASED ON**
14:30 **MULTI-ANGLE OBSERVATION**
Kaiwen Zhu [1,2*] , Tianyi Zhang [1,2] , Linghao Li [1,2] , Zegang Ding [1,2,3]
[1]Radar Research Laboratory, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing Institute of Technology, Beijing, China
[3]Beijing Institute of Technology Chongqing Innovation Center, Chongqing, China

Oral Session 30: Antenna and RF component

Time: **13: 00 – 15: 00, December 5, 2023**
Place: **Meeting Room 5**
Chairs: **Assistant Prof. Rui Zhu, Beijing Institute of Technology, China**
Prof. Yuandan Dong, University of Electronic Science and Technology of China, China

B0935 **WIDEBAND PATTERN RECONFIGURABLE DIELECTRIC RESONATOR**
13:00 **ANTENNA FOR WI-FI APPLICATIONS**
Jiawen You [1] , Yuandan Dong [1*]
[1]University of Electronic Science and Technology of China, Chengdu 611731, China

B0900 **TRANSMISSION COEFFICIENTS ELIMINATION FOR**
13:15 **AMPLITUDE-ONLY REV METHOD IN PHASED ARRAY CALIBRATION**
Jiaohao Zhu [1,2] , Yinbo Zhao [1,2] , Zengdi Bao [1,2*] , Yang Li [1]
[1]Radar Research Laboratory, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Yangtze Delta Region Academy, Beijing Institute of Technology, Jiaxing, Zhejiang, China

B0110 **DESIGN AND EXPERIMENTAL RESEARCH ON VIBRATION DAMPING**
13:30 **FOR MISSILE-BORNE RADAR ANTENNA SYSTEM**

Kai Zhao [1 *] , Peng K YU [1] , Lin Liu [1] , Liang Mao [1]
[1]No. 38 Research Institute of CETC, Hefei 230028, China

A0012 **2D-DOA ESTIMATION WITH DIFFERENCE AND SUM COARRAY FOR**
13:45 **L-SHAPED DISTRIBUTED ARRAY**

Yanping Liao [1] , Linlin Hao [2] , Yihong Lin [3]
[1,2]Department of Information and Communication Engineering, Harbin Engineering University, Harbin, China
[3]Company Limited of Guangdong OPPO Mobile Telecommunications, OPPO, Guangdong, China

B0131 **HIGH TRANSMITTER-RECEIVER ISOLATION DESIGN OF WIDE-BEAM**
14:00 **ARRAY ANTENNAS**

Dandan Yan [1] , Qingfeng Sun [1] , Gan Wang [1] , Xin Huang [1] , Ruoqiao Zhang [2]
[1]Nanjing Glarun Defense System Co.,Ltd, Nanjing, China
[2]The 14 th Research Institute of China Electronics Technology Group Corporation, Nanjing, China

B0239 **AN ULTRA-LOW PHASE-NOISE FREQUENCY SYNTHESIZER IN A**
14:15 **PACKAGE**

Heng Zang [*] , Xi Xia, Yu Jiao, Pingyu Li
NO.724 Research Institute of CSSC, Nanjing, China

B0370 **A HIGH-INTEGRATED KA-BAND PHASED ARRAY ANTENNA FOR RADAR**
14:30 **APPLICATION**

Yuxing Fan [1] , Lei Wang [1] , Yingqiang Chen [1] , Sijie Wang [1] , Tinghui Zhang [1] , Juan Liu [1*]
[1]Beijing Institute of Remote Sensing Equipment, No.52, Yongding Road, Haidian District, Beijing, China

B0521 **A SILICON-BASED FREQUENCY RECONFIGURABLE ANTENNA DESIGN**
14:45 **BASED ON PINIP DIODES**

Meng Chunkao [1] , Yang Daixu [1], Liu Shengying [1]
Beijing Institute of Remote Sensing Equipment, Beijing 100854, China

Poster Sessions

Poster Session 1: Radar Signal and Data Processing

Time: 15: 30 - 16: 30, December 4, 2023
Place: Liangjiang Grand Ballroom 1+2
Chair: Dr. Zhen Wang, Beijing Institute of Technology, China
Dr. Tianyi Zhang, Beijing Institute of Technology, China
Prof. Xiaolei Han, The Institute of Remote Sensing Satellites (IRSS) of the China Academy of Space Technology (CAST), China

C0003 **NON-CONTACT MONITORING OF HEARTBEATAND RESPIRATORY RATE USING FIFALGORITHM BASED ON IR-UWB RADAR**
Lihong Qiao, Haiyue Zhang
[1]Department of Computer Science and Technology, Chongqing University of Posts and Telecommunications Chongqing, China

C0018 **SAR IMAGE CLASSIFICATION USING PSEUDOSIAMESE NETWORK AND SUPERVISEDCONTRASTIVE LOSS**
Jiawei Huang*, Daiyin Zhu, Xudong Wang, Hongren Chen, Jiming Lv
College of Electronic and Information Engineering, Nanjing University of Aeronautics and Astronautics, Nanjing, China

C0029 **ESA-NET: A NETWORK FOR ENHANCING SMALL TARGET DETECTION PERFORMANCE IN SAR IMAGERY AIRCRAFT**
Ping Han1*, Han Zhao1
[1]Tianjin Key Lab for Advanced Signal Processing, Civil Aviation University of China, Tianjin, China

C0033 **SPARSE SAR TARGET CLASSIFICATION BASED ON TRANSFER LEARNING**
Zehao Liu[1,2], Jingjing Zhang[1,2], Jiarui Deng[1,2], Zhongyuan Ji[1,2], Hui Bi[1,2]*
[1]College of Electronic Engineering, Nanjing University of Aeronautics and Astronautics, Nanjing, China
[2]Key Laboratory of Radar Imaging and Microwave Photonics, Ministry of Education, Nanjing University of Aeronautics and Astronautics, Nanjing, China

C0036 **RADAR TARGET RECOGNITION BASED ON DATA-LEVEL FUSIONOF RADAR MULTI-DIMENSIONAL INFORMATION**
Chunxiao Wu[123]*, Jingming Sun[123], Qiang Cheng[123], Yuhao Yang[123]
[1]Nanjing Research Institute of Electronics Technology, Nanjing 210039, China
[2]Key Laboratory of IntelliSense Technology, CETC, Nanjing 210039, China
[3]Jiangsu Provincial Key Laboratory of Detection and Perception Technology, Nanjing 210039, China

C0053 AN AUTONOMOUS FEATURE DETECTIONMETHOD FOR SLOW SMALL TARGETS ONSEA SURFACE BASED ON CONTEXTUALBANDIT APPROACH

Xijie Wu[1], Tianpeng Liu[1*], Yongxiang Liu[1], Li Liu[1], Jianfeng Xu[2], Jing Zhu[3]
[1]National University of Defense Technology, 410005, Changsha, China
[2]Rocket Force University of Engineering, 710025, Xi'an, China
[3]Unit 92192 of the PLA

C0056 MULTIPLE-MODEL GENERALIZED LABELED MULTI-BERNOULLI FILTER BASED ON TRACK-BEFORE-DETECT OBSERVATION MODEL FOR TRACKING MANEUVERING TARGETS IN SEA CLUTTER

Chenghu Cao[1], Yongbo Zhao[2*], and Haisheng Huang[1]
[1]Xi'an University of Posts & Telecommunications, Xi'an 710071, China
[2]National Key Lab of Radar Signal Processing, Xidian University, Xi'an 710071, China

C0080 RESEARCH ON MODELLING MOTION ECHO ANDMOTION INTENTION RECOGNITION OFHELICOPTER

Ming Long[1], Yongjie Jia[2], Mingjiu Lv [1*], Jun Yang[1], Saiqiang Xi[1], Ke Liu [1], Zirui Chen [1], Peng Zhuang [1]
[1]Early Warning Academy, Wuhan, People's Republic of China
[2]No.93498 Unit of the PLA, Shijiazhuang, People's Republic of China

C0087 SAR DEFORMATION VEHICLE TARGETRECOGNITION BASED ON IMPROVEDTRANSFORMER NETWORK

Jiming Lv[1*], Daiyin Zhu[1], Hongren Chen[1], Jiawei Huang[1], Jiaqin Yang[1]
[1]Key Laboratory of Radar Imaging and Microwave Photonics, Ministry of Education, College of Electronic and Information Engineering, Nanjing University of Aeronautics and Astronautics, Nanjing, China

C0096 TRANSIENT OBSERVATION FOR MICRO-DOPPLER OF DRONES

Jiangkun Gong[1], Jun Yan[1*], Deyong Kong[2], Yandong Hu[3], Deren Li[1]
[1]State Key Laboratory of Information Engineering in Surveying, Mapping and Remote Sense, Wuhan University, No. 129 Luoyu Road, Wuhan, China
[2]School of Information and Communication Engineering, Hubei University of Economics, Wuhan, China
[3]School of Intelligent Engineering, Zhengzhou University of Aeronautics, Zhengzhou, China

C0105 MONDRIAN CONFORMAL PREDICTIONENHANCED LSTM FOR BIRDS AND DRONESRECOGNITION

Nannan Zhu[1], Zepu Xi[1*], Hongbo Chen[1*], Shiyou Xu[2], Yifan Wang[3], and Fuli Zhong[1]
[1]School of Systems Science and Engineering, Sun Yat-sen University, Guangzhou, China
[2]School of Electronics and Communication Engineering, Sun Yat-sen University, Shenzhen, China
[3]Department of Mechanical and Electrical Equipment Industry, Guangzhou Communications Technician Institute, Guangzhou, China

C0123 A FALSE POINTS ELIMINATINGMETHODOFBEARING-CROSSING LOCALIZATIONINPASSIVERADAR BASED ON HOUGHTRANSFORM

Wang Yanping, Liu Zhen, Jiang Wen*, Li Yang, Lin Yun, Shen Wenjie
Laboratory of Radar Monitoring Technology, School of Information, North China University of Technology, Beijing 100144, China

C0134 EFFECTIVE DETECTION AND LOCALIZATION OF SMALL MANEUVERINGUAV SWARM VIA COHERENT FDA RADAR

Yu Lei[1], Zhang Qilei[1*], Yuan Tao[1], Wang Miao[1], Wang Shenjing[1]
[1]College of Electronics Science, National University of Defense Technology, Changsha, 410035, China

C0137 AN MULTILAYER FUSION STRATEGY BASED ONIMPROVED YOLOV5 FOR SHIP DETECTION IN SARIMAGES

Fan Chen[1,4], Hao Shi[1,3,4], Liangbo Zhao[2], Yongfei Mao[2], Hongxin Pan[1,3,4] Liang Chen[1,4]
[1]Radar Research Lab, Beijing Institute of Technology, Beijing, China
[2]General Department of Remote Sensing Satellites, China Academy of Space Technology, China
[3]Beijing Institute of Technology Chongqing Innovation Center, Chongqing, China
[4]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing, China

C0138 SAR-DARTS: A CONVOLUTIONAL NEURALARCHITECTURE SEARCH FOR SAR SCENECLASSIFICATION

Tian Zhou[1,2], Yinsheng Xu[3], Qihai Li[1,2], Baogui Qi[1,2*], He Chen[1,2], Liang Chen[1,2]
[1]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing Institute of Technology, Beijing 100081, China
[2]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing, Zhejiang 314019, China
[3]Shanghai Institute of Satellite Engineering, Shanghai 200240, China

C0139 REALIZATION OF REMOTE SENSING IMAGE CLASSIFICATIONALGORITHM BASED ON SOPC

Guijie Qi[12], Tingting Qiao[12], Yizhuang Xie[12*]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China;
[2]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing 100081, China

C0140 A MODEL COMPRESSION METHOD BASED ONMULTI-TEACHER DISTILLATION FOR SAR SCENECLASSIFICATION

Qihai Li[1,2], Jiawei Zhang[3], Tian Zhou[1,2], Baogui Qi[1,2*], He Chen[1,2], Liang Chen[1,2]
[1]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing Institute of Technology, Beijing 100081, China
[2]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing, Zhejiang 314019, China
[3]Shanghai Institute of Satellite Engineering, Shanghai 200240, China

C0145 A HUMAN POSTURE RECOGNITION METHOD FORMILLIMETER WAVE RADAR SPARSE POINTCLOUD

Yucong Liu[1], Chao Zhou[2],Xingming Li[2],Shanqing Hu[1,3*]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Beijing Racobit Electronic Information Technology Co.,Ltd, Beijing, China
[3]Beijing Institute of Technology Chongqing Innovation Center, Chongqing, China

C0146 A WAKE-SLEEP TIME EXTRACTION TECHNIQUEBASED ON RADAR POINT CLOUDS

Kaiyang Cai[1], Chao Zhou[2], Xingming Li[2], Shanqing Hu[1,3*]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Beijing Racobit Electronic Information Technology Co.,Ltd., Beijing, China
[3]Beijing Institute of Technology Chongqing Innovation Center, Chongqing, China

C0147 A NETWORK COMPRESSION METHOD BASED ONNETWORK ARCHITECTURE SEARCH FOR SARTARGET DETECTION

Penghe Zhao[1,2], Zhengjie Jiang[1], Baogui Qi[1,2*], He Chen[1,2], Liang Chen[1,2]
[1]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing Institute of Technology, Beijing 100081, China
[2]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing, Zhejiang 314019, China

C0163 A ROCKFALL MOTION PARAMETER ESTIMATIONMETHOD BASED ON TDM-MIMO RADAR WITHCOMBINED DOUBLE/MULTI-PULSE CHANNELS

Xiaoyu Ren[1,2], Jingshuang Qi[1,3], Yunkai Deng[1,3], Ruiqi Lin[1], Youwang Chen[1,2], WeimingTian[1,4*]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China
[2]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing Institute of Technology, Beijing 100081, China
[3]Chongqing Innovation Center, Beijing Institute of Technology, Chongqing 401120, China
[4]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan 250300, China

C0166 DA-SSD: DOMAIN ADAPTATION FOR 3D SINGLE STAGE OBJECT DETECTOR

Jiaxun Tong[1], Kaiqi Liu[1*], Xia Bai[1], Wei Li[1]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing, China

C0167 A NOVEL METHOD FOR MICRO-MOTION TARGETDETECTION AND GHOST TRACKSUPPRESSIONINAUTOMOTIVE RADAR

Jun Zhang, Chuying Fang, Qiaozhen Zheng, Ziqiang Tong[*]
Freetech Intelligent System Co., Ltd., Shanghai, China

C0172 RESEARCH ON α-β FILTERING ALGORITHM ONTRACKING HIGH-SPEED AMMO

Lei Liu1*, Tongliang Li[1,2], Wei Zhou[1]
[1]The 38th Research Institute of China Electronics Technology Group Corporation, Hefei, China
[2]University of Electronic Science and Technology of China, Chengdu, China

C0191 A POLARIZATION HRRP TARGETCLASSIFICATION METHOD BASED ON ONEDIMENSIONAL CONVOLUTIONAL ATTENTIONNEURAL NETWORK

Lu Li[1*], Ke Ren[2], Ziqiao Yuan[1],Chao Feng[1]
[1]Xi'an Electronic Engineering Research Institute, Xi'an, China
[2]China Academy of Space Technology (Xi'an), Xi'an, China

C0196 GESTURE RECOGNITION FOR MILLIMETER WAVERADAR BASED ON LOCALPVT

Shuo Zhao[1], Zhaocheng Wang[1*], Hailong Kang[2,3], Ruonan Wang[1],
Guangxuan Hu[1],Guang Zhang[1]
[1]School of Electronics and Information Engineering, Hebei University of Technology, Tianjin 300401, China
[2]Hangzhou Institute of Technology, Xidian University, Hangzhou 311200, China
[3]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an 710071, China

C0197 CONTRASTIVE LEARNING-BASEDPROTOTYPE CALIBRATION METHOD FORFEW-SHOT HRRP RECOGNITION

Mei Liu[1*], Zhiwei Zhang[1], Xunzhang Gao[1]
[1]College of Electronic Science, National University of Defense Technology, Changsha, China

C0208 PMBM FILTER WITH TREE TRAJECTORY MODELFOR SPAWNING EXTENDED TARGET TRACKING

Ruhua Cai[1], Yingzhuang Yang[2], Sunyong Wu[3*], Qiutiao Xue[4],Jinxin Liu[5]
[1,2,3,4,5]School of Mathematics and Computing Science, Guilin University of Electronic Technology, Guilin, China

C0209 A SHIP DETECTION METHOD BASED ON YOLOV7IN RANGE-COMPRESSED SAR DATA

Xiangdong Tan[1], Xiangguang Leng[1*], Jin Wang1, Kefeng Ji[1]
[1]State Key Laboratory of Complex Electromagnetic Environment Effects on Electronics and Information System, College of Electronic Science and Technology, National University of Defense Technology, Changsha, China

C0210 A NOVEL ILLUMINATION NORMALIZATION BASED ON 2D RECURSIVECONVEX OPTIMIZATION

Yaqiong Yan[1], Ji Shi[2*], Maoxin Cai[3],Jiafei Zhao[4]
[1,2,3,4]Beijing Institute of Remote Sensing Device, Beijing, China

C0211 HRRP TARGET IDENTIFICATION METHOD BASED ONJOINT FEATUREEXTRACTION AND STACKING MODEL CLASSIFICATION

Yuanzheng Ji, Jiaqi Wang, Aijun Liu*
School of Information Science and Engineering, Harbin Institute of Technology (Weihai), Weihai 264200, China

C0219 AN IMPROVED TWO-DIMENSIONAL CFAR DETECTOR FOR MOVING TARGET DETECTION IN COMPLEX GROUND CLUTTER SCENARIOS

Ruiqi Lin[1], Xiaoyu Ren[1,2], Youwang Chen[1], Yunkai Deng[1,3], Weiming Tian[1,4*]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China
[2]Key Laboratory of Electronic and Information Technology in Satellite Navigation (Beijing Institute of Technology), Ministry of Education, Beijing 100081, China
[3]Chongqing Innovation Center, Beijing Institute of Technology, Chongqing 401120, China
[4]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan 250300, China

C0224 A TRACK INITIATION METHOD BASED ON THECOMBINATION OF KALMAN FILTERING AND THETRANSFORMER MODEL

Donghong Yang[1], Guoqiang Zhao[1*], Da Li[1], Shiyong Li[1]
[1]School of Integrated Circuits and Electronics, Beijing Institute of Technology, Beijing, China

C0225 A NOVEL ACCELERATION COMPENSATED ALPHA-BETA FILTER

Jianchao Mu*, Zhonghan SuBeijing
Institute of Radio Measurement, Beijing, China

C0236 HIGH-SPEED MANEUVERING TARGET DETECTOR BASED ON DEEPRESIDUAL NETWORK

Wenqi Jiang[1], Bo Jiu[1*], Yu Zhao[1], Hongwei Liu[1], Yu Zhang[1], Chunlei Wang[2]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, China
[2]Nanjing Research Institute of Electronics Technology, Nanjing, China

C0246 SINGLE PULSE TARGET DETECTION METHODBASED ON A TWO-STAGE CONVOLUTIONALNEURAL NETWORK

Mingjie Qiu[1,2*], Jianming Wang[1], Guangxin Wu[1], Peng Zhang[1]
[1]Nanjing Research Institute of Electronics Technology, No. 8 Guorui Road Yuhuatai District, Nanjing, China
[2]China Academy of Electronics and Information Technology, No. 11 Shuangyuan Rd Shijingshan District, Beijing, China

C0254 OPEN SET TARGET RECOGNITION BASED ON MULTI-TASKCOMPRESSED SENSING USING MULTI-VIEW HIGH RANGERESOLUTION PROFILES

Huiqiang Zhang[1], Shengqi Liu[1*], Shuhua Teng[2], Shuang Qu[1], Jie Deng[1], Zhenlin Yu[1]
[1]National Key Laboratory of Automatic Target Recognition, National University of Defense Technology,Changsha, China
[2]College of Electronic Information, Hunan First Normal University, Changsha 410205, China

C0255 TARGET DETECTION BASED ON GIP FOR FOLIAGE PENETRATION INSIGNAL DOMAIN

Haoxuan Teng[1], Xiangfei Nie[1], Zhijun Yang[2*], Xin Xie[3], Zhiqiang Zhang[1]
[1]School of Electronic and Information Engineer, Chongqing Three Gorges University, Chongqing, China
[2]Chongqing Innovation Center, Beijing Institute of Technology, Chongqing, China
[3]School of Information of Electronics, Beijing Institute of Technology, Beijing, China

C0265 RESEARCH ON RADAR RECOGNITION TECHNOLOGY FOR UAV TARGET IN MIGRATORY BIRDS BACKGROUND

Haibo Liu[1,2*], Xingkai Wu[1,2], Guangmao Chen[1,2]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Electromagnetic Sensing Research Center of CEMEE State Key Laboratory, School of Information and Electronics, Beijing Institute of Technology, Beijing, China

C0271 INSHORE SHIP DETECTION USING HIGHRESOLUTION SAR IMAGES BASED ON MULTIFEATURE FUSION

Shujie Wu[1,2], Wei Wang[2*], Feng Ruan[1], Huiqiang Zhang[2], Jie Deng[2], Pengcheng Guo[1],Hongqi Fan[2]
[1]Xi'an Electronic Engineering Research Institute, Xi'an, China
[2]National Key Laboratory of Science and Technology on Automatic Target Recognition, National University of Defense Technology, Changsha, China

C0272 AN ACCUMULATION DETECTION METHOD BASEDON ENERGY DISPERSION OF TARGET ECHO INWIDEBAND RADAR

Yan Dai, Dan Liu*, Yao Wei, Mao Jian
Beijing Institute of Radio Measurement, Beijing 100854, China

C0277 A SIMPLIFIED PROCESSING METHOD FOR ANGLEMEASUREMENT OF BROADBAND PHASED ARRAY

Yu Zhang Qingyang Sun Le Liu Wenjun Han ZhiYong Lei
Department of information processing, Nanjing Research Institute of Electronics Technology Nanjing, China

C0282 RESEARCH ON HIGH-PRECISION POSITIONING TECHNOLOGY OF UAVUSING MULTI-BASE STATION 4G SIGNALS

Guo Liu[1], Zhaozhao Gao[2], Jie Gu[3], Bo Qi[4], Lingjie Yan[5]
[1,2,3,4,5]Science and Technology on Electric Information Control Laboratory, Chengdu 610036, China

C0300 FAST AND EFFICIENT K-D FREQUENCY ESTIMATION FOR MULTIPLECOMPLEX SINUSOIDS

Geng Chen[1], Chunyang Wang[1], Jian Gong[1*] and Ming Tan[2]
[1]School of Air Defense and AntiMissile, Air Force Engineering University, Xi'an, 710051, China
[2]College of Information and Communication, National University of Defense Technology, Wuhan, 430010, China

C0309 A NOVEL TARGET RECOGNITION METHOD WITHPOLARIMETRIC CORRELATIONPHASE FOR SAR IMAGES

Huiping Lin*, Haipeng Wang
Key Laboratory for Information Science of Electromagnetic Waves (MoE),Fudan University, Shanghai, China

C0318 RESEARCH ON GROUND CLUTTER POLARIZATION SUPPRESSIONALGORITHM BASED ON PRIOR INFORMATION

Sheng Liu[123], Jiong Cai[13], Jichuan Zhang[13], Rui Wang[123*], Cheng Hu[123]
[1]The Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing100081, China
[2]The Advanced Technology Research Institute, Beijing Institute of Technology, Jinan 250300, China
[3]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing 100081, China;

C0319 SAR SHIP TARGET RECOGNITION COMBINEDWITH GLOBAL SCATTERING ASSOCIATIONFEATURES

Xianghui Zhang[1], Sijia Feng[2], Chenxi Zhao[1], Siqian Zhang[1*], Kefeng Ji[1]
[1]College of Electronic Science and Technology, National University of Defense Technology, Changsha, China
[2]College of Meteorology and Oceanography, National University of Defense Technology, Changsha, China

C0323 A MODIFIED STRONG TRACKING ALGORITHMBASED ON SRCKF FOR TARGET TRACKING

Congchong Cao[1], Ting Cheng[1*], Yumeng Wang[1], Mengmeng Han[2]
[1]School of Information and Communication Engineering, University of Electronic Science and Technology of China, Chengdu, China
[2]The Beijing Electro-Mechanical Engineering Institute, Beijing, China

C0327 PARALLEL FPGA-BASED PROCESSING FORIMPROVED INFRARED TARGET DETECTIONUSING VMD AND SPWVD

Zhe Wang, Mi Tian, Yu Hai, Liang Gui, Zhongyu Li*
School of Information and Communication Engineering, University of Electronic Science and Technology of China, Chengdu, China

C0337 DEFECT RECOGNITION METHOD OF DIGITAL TWINPOWERLINEIMAGE BASED ON IMPROVED TRIDENTNET

Fan XU[1,2*], Yuanyuan LIU[1], Fan YANG[3], Wenpu LI[1], Xiaomeng DI[4], Xiaodong DU[5], Xingtao WANG[1]
[1]State Grid Information & Telecommunication Group CO，LTD, Beijing, China
[2]Beijing Insititute of technology, Beijing, China
[3]Aostar Information Technologies Co.,Ltd, Address, Chengdu, China
[4]China Electric Power Research Institute, Beijing, China
[5]Hebei Electric Power Research Institute of State Grid, Shijiazhuang, China

C0342 CLASSIFICATION OF DRONES AND BIRDS BASEDON INTEGRATION OF LOCAL AND GLOBALFEATURES

Xianjun Xie[1*], Zhou Ye[1], Lei Zhou[2], Kun Qin[1], Tianjiao Zhang[1]
[1]Shanghai Aerospace Electronic Technology Institute, Shanghai, China
[2]Shanghai Academy of Spaceflight Technology, Shanghai, China

C0346 CLOSELY SPACED NETWORK-GROUP TARGETTRACKING USING THE DIRICHLET GGIW-PHD FILTER

Ximeng Zhang[1], Weidong Hu[1], Qingping Wang[1*], Hongyu Zhu[1], Naichang Yuan[1]
[1]School of Electronic Science and Engineering, National University of Defense Technology, Changsha, China

C0368 AN IMPROVED BISTATIC RADAR POSITIONINGMETHOD BASED ON PCPF

Yu Gong[1], Yicheng Jiang[1*], Zitao Liu[1]
[1]Research Institute of Electronic Engineering Technology, Harbin Institute of Technology, Harbin, China

C0369 GPCNN: GROUPED POOLING CONVOLUTIONAL NEURAL NETWORKFOR RADAR TARGET DETECTION

Dan Li[1], Jingsheng Luo[2], Yong Li[1]
[1]School of Electronics and Information, Northwestern Polytechnical University, Xi'an 710072, China
[2]AVIC Leihua Electronic Technology Research Institute, Wuxi 214063, China

C0371 ADAPTIVE DETECTORS WITH ENHANCEDSELECTIVITY PROPERTIES IN THE COMPOUNDGAUSSAIN CLUTTER WITH GERNERALIZEDINVERSE GAUSSIAN TEXTURE

Zeyu Wang[1*], Zhirui Wang[2], Xiaona Sun[2]
[1]State Key Laboratory of Networking and Switching Technology, School of Information and Communication Engineering, Beijing University of Posts and Telecommunications, Beijing, China
[2]Beijing Institute of Radio Measurement, Beijing, China

C0376 A LIGHTWEIGHT SAR SHIP DETECTION METHOD BASED ONIMPROVED YOLOV8

Yuo Guo[1], Ronghui Zhan[1*], Shiqi Chen[2], Luzhuo Li[3], Jun Zhang[1]
[1]National Key Laboratory of Automatic Target Recognition, National University of Defense Technology, Changsha, China
[2]College of Information and Communication, National University of Defense Technology, Wuhan, China
[3]Beijing University of Technology, Beijing, China

C0382 CHARACTERIZATION OF CORNER REFLECTORARRAY IN JOINT SPACE-TIME-POLARIZATIONDOMAIN

Hao-Liang Li, Xing-Chao Cui, Ming-Dian Li, Si-Wei Chen*
College of Electronic Science and Technology, National University of Defense Technology, Changsha, China

C0392 THRESHOLD-FREE ADAPTIVE OPEN-SETCLASSIFIER FOR SAR TARGET RECOGNITION

Yue Li[1], Haohao Ren[1*], Xuelian Yu[1], Chengfa Zhang[2], Lin Zou[1], Yun Zhou[1]
[1]University of Electronic Science and Technology of China, Chengdu 611731, China
[2]Chengdu Lingjie Technology Corporation, Chengdu 8092, China

C0396 EFFECTIVE HRRP DATA AUGMENTATION BYCONTRASTIVE ADVERSARIAL TRAINING

Ying Xu[1], Liangchao Shi[1], Chuyang Lin[1], Yue Huang[1*], Xinghao Ding[1]
[1]School of Informatics, Xiamen University, Xiamen, China

C0405 CRAMÉR-RAO BOUND ASSESSMENT FORMANNED-UNMANNED BISTATIC AIRBORNERADAR

Jinjun, He[1], Haihong, Wang[2], Keqing, Duan[3*]
[1]School of Electronics and Communication Engineering, Sun Yat-Sen University, Shenzhen, China

C0426 MULTI-TARGET HIGH-RESOLUTION DOA ESTIMATION BASED ONSPARSE RECONSTRUCTION FOR FREQUENCY AGILITY RADAR

Ruofan Liu[1], Danlei Xu[2], Bo Jiu[1], Youlin Fan[1], Yu Zhang[1], Hongwei Liu[1]
[1]National Key Laboratory of Radar Signal Processing Xidian University, Xi'an, 710071, China
[2]Institute of Information Sensing Xidian University, Xi'an, 710071, China

C0429 SAR SHIP RECOGNITION VIA VISION TRANSFORMER

Siyi Luo, Chenwei Wang, Yulin Huang, Jifang Pei, Weibo Huo
School of Information and Communication Engineering University of Electronic Science and Technology of China, Chengdu, China

C0433 RADAR HIGH RESOLUTION RANGE PROFILE OPEN SET RECOGNITION OF UAV TARGET

Mingfei Mei[1], Shifei Tao[1*], Shumin Zhang[1]
[1]School of Electronic and Optical Engineering, Nanjing University of Science and Technology, Nanjing, China

C0451 A SELF-ATTENTION ARMED LIGHTWEIGHTOPTRONIC CONVOLUTIONAL NEURAL NETWORKFOR SAR TARGET RECOGNITION

Zicheng Huang[1], Mengyang Shi[1], Yanru Chen[1], Yesheng Gao[1*]
[1]State Key Laboratory of Advanced Optical Communication Systems and Networks, Shanghai Jiao Tong University, China

C0452 SPECKLE-BASED OPTRONIC CONVOLUTIONALNEURAL NETWORK FOR SAR TARGETRECOGNITION IN LIGHT SCATTERING IMAGING

Zicheng Huang[1], Yanru Chen[1], Mengyang Shi[1], Ziyu Gu[1], Yesheng Gao[1*]
[1]State Key Laboratory of Advanced Optical Communication Systems and Networks, Shanghai Jiao Tong University, China

C0458 SUPERVISED LEARNING-BASED GENERATIVEADVERSARIAL NETWORK FOR TARGET SIGNATURESEGMENTATION IN GPR B-SCAN IMAGE

Feifei Hou[1*], Boxuan Qiao[1]
[1]School of Automation, Central South University, Changsha, China

C0464 SAR-PC2AC: INTEGRATED PHASECONGRUENCYAND CNN FOR AIRCRAFT CLASSIFICATIONINSARIMAGERY

Ru Luo[1], Lingjun Zhao[1*], Yuting Yang[1], Zheng Zhou[1], Kefeng Ji[1]
[1]College of Electronic Science and Technology, National University of Defense Technology, Changsha 410073, China

C0466 SEQUENTIAL SAR IMAGES TARGETDETECTIONBASED ON SSD AND 3D CONVOLUTIONALLSTM

Mingjie Su[1], Peishuag Ni[1], Hao Pei[1], Xiuli Kou[2],Gang Xu[*1]
[1]State Key Laboratory of Millimeter Waves, Southeast University, Nanjing210094, China
[2]School of Electronics and Information Engineering, Beihang University, Beijing100191, China
[2]Beijing Institute of Radio Measurement, Beijing100854, China

C0467 FEATURE SELECTION AND TARGET CLASSIFICATIONTECHNIQUES IN IMBALANCED SAMPLES

Ting Song[*]， Rui Liu ， Xiao Bo Deng
AVIC Leihua Electronic Technology Research Institute, Wuxi, China

C0500 AN ADAPTIVE OS-CFAR DETECTOR FOR DYNAMIC GROUP TARGETS

Mengxin Shi[1], Longxiang Jiao[1], Qi Jiang[1*], Rui Wang[123], Cheng Hu[123]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, Shandong, China
[3]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing, China

C0509 PERFORMANCE ANALYSIS OF SUB-OBJECT PARTITION METHOD FORLINEAR FORMATION TARGETS

Li'ang Xu[1], Qi Jiang[1*], Jichuan Zhang[1], Rui Wang[123], Cheng Hu[123]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, Shandong, China
[3]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing, China

C0510 GENERALIZED LIKELIHOOD RATIO TEST MATCHED TO FLUCTUATIONCHARACTERISTICS

Yifu Hu[1,2], Jianxiong Zhou[2], Weidong Hu[2], Yajun Wang[1], Yuhao Hu[2], Hui Jiang[2], Xiaoyong Du[2*]
[1]Xi'an Electronic Engineering Research Institute, Xi'an, China
[2]College of Electronic Science and Technology, National University of Defense Technology, Changsha, China

C0524 ANALYSIS OF FORMATION UAV TARGETS' ANGULAR GLINT CHARACTERISTICS USING PHASE GRADIENT METHOD

Libin Dou[1], Qi Jiang[1*], Wenyuan Zhang[1], Rui Wang[123], Cheng Hu[123]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, Shandong, China
[3]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing, China

C0525 DIRECTION OF ARRIVAL ESTIMATION BASED ONDNCNN IN LOW SNR

Mingxuan Liu[1,2,3], Can Liang[2,3], Shaohua Chen[1,2,3], Chuanhao Zhao[1,2,3], Ling Ding[1,2,3],Xueyao Hu[1,2,3*]
[1]Beijing Institute of Technology Chongqing Innovation Center, Chongqing, China
[2]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[3]Electromagnetic Sensing Research Center of CEMEE State Key Laberatery, Beijing Institute of Technology, Beijing，China

C0528 EXPLORING THE DEEP INCREMENTAL LEARNINGFOR RADAR TARGET RECOGNITION

Dekui Xing[1,2], Jiewen Zhao[2], Kang Zhang[2], Yaxian Ji[2], Ke Wang[2], Fuchun Sun[1*]
[1]Tsinghua University, Beijing, China
[2]Beijing Institute of Radio Measurement, Beijing, China

C0534 GRADIENT TEST FOR DOUBLE SUBSPACE SIGNAL DETECTION

Weijian Liu[1], Can Huang[2], Daipeng Xiao[1], Jun Liu[3], Binbin Li[1], Hui Chen[1]
[1]Wuhan Electronic Information Institute, Wuhan, China
[2]School of Electronic Information, Wuhan University, Wuhan, China
[3]Department of Electronic Engineering and Information Science, University of Science and Technology ofChina, Hefei, China

C0540 UNSUPERVISED DOMAIN ADAPTIVE SAR SHIPDETECTION BASED ON CROSS-DOMAIN FEATUREINTERACTION AND DATA CONTRIBUTION BALANCE

Yang Yanrui[1,2], Chen Jie[1,2*], Sun Long[1], Zhou Zheng[3], Huang Zhixiang[1], Wu Bocai[2]
[1]Key Laboratory of Intelligent Computing and Signal Processing of Ministry of Education, School of Electronics andInformation Engineering of Anhui University, Hefei, China
[2]38th Research Institute of China Electronics Technology Group Corporation, Hefei, China
[3]Key Laboratory of Complex Electromagnetic Environment Effects on Electronics and Information System, College of Electronic Science and Technology, National University of Defense Technology (NUDT), Changsha, China

C0542 COMPLEX-VALUED CROSS-DOMAIN FEW-SHOT LEARNING NETWORK FOR POLSARIMAGECLASSIFICATION

Yice Cao[1], Dayi Zhu[1], Zhenhua Wu[12*], Jie Chen[12], Zhixiang Huang[1], Lixia Yang[1]
[1]Key Laboratory of Intelligent Computing and Signal Processing, Ministry of Education, School of Electronics and Information Engineering, Anhui University, Hefei 230601, China
[2]38th Research Institute, China Electronics Technology Group Corporation, Hefei 230088, China

C0544 DEFORMABLE CONVOLUTION AND GLOBAL ATTENTION IMPROVESMALL SHIP TARGET DETECTION IN SAR IMAGES

Wei Hou[1], Di Wu[1*], Haomeng Wu[1]
[1]Harbin Space Star Data System Technology Co., Ltd, Harbin, China

C0551 GPR TARGET RECOGNITION FRAMEWORKBASEDON LOW-RANK SPARSE DECOMPOSITIONANDHYPERBOLIC SCANNING

HongChang Chen[1], XiaoPeng Yang[2], JunBo Gong[1], Tian Lan[1*]
[1]Chongqing Innovation Center, Beijing Institute of Technology, 401120, Chongqing, China
[2]School of Information and Electronics Beijing Institute of Technology, 100081, Beijing, China

C0555 UNSUPERVISED FEATURE REPRESENTATION FOROCEAN-GOING SHIP DETECTION

Haoyan Li[1], Zhuowei Wang[1], Zekai Zhang[1], Shichao Zhou[1*]
[1]Beijing Information Science & Technology University, School of Information and Communication Engineering, Beijing, China

C0561 GRU-CNN-BASED EXTENDED KALMAN TRACKING METHOD FORSMALL BIRD TARGETS ON LIDAR

Hongchang Wang, Bing Han*, Zhigang Su, Jingtang Hao and Xinyi Zhao
The Civil Aviation University of China, Tianjin, China

C0563 CONVOLUTIONAL NEURAL NETWORK-BASED OBJECTCLASSIFICATION FOR UNMANNED AERIAL VEHICLES USING MICRODOPPLER FEATURES

Tiezhen Jiang[1], Qingzhu Li[1], Long Zhuang[1*]
[1]School of Integrated Circuits, Anhui University, Hefei, China

C0569 END-TO-END GLOBAL SEGMENTATION OFPOLSAR IMAGES WITH DATA AUGMENTATION

Zehua Wang[1,2,3], Zezhong Wang[1,2], Xiaolan Qiu[1,2,3], Zhe Zhang[1,2,3*]
[1]Key Laboratory of Intelligent Aerospace Big Data Application Technology, Suzhou, China
[2]Suzhou Aerospace Information Research Institute, Suzhou, China
[3]School of Electronic, Electrical and Communication, Engineering, University of Chinese Academy of Sciences，Beijing，China

C0583 A CLASSIFICATION METHOD FOR GROUP TARGETS AND EXTENDEDTARGETS BASED ON SSA

Chen Jinyu[1], Chen Shuailin[1*], Li Jinping[1], Dang Yuanjie[1], Cao Chuanshuo[1]
[1]Xi'an Modern Control Technology Research Institute, Xi'an 710000, China

C0587 ORIENTED SHIP DETECTION BASED ON SOFTTHRESHOLDING IN SAR IMAGES OF COMPLEXSCENES

Chuan Zhang[1*], Gui Gao[1], Linlin Zhang[1]
[1]the Faculty of Geosciences and Environmental Engineering, Southwest Jiaotong University, Chengdu 611756, China

C0594 AN IMPROVED CLEAN ALGORITHM FOR MULTI-TARGETDETECTION IN LFM PULSE RADAR

Xingyu Chen[1], Chen Yao[1], Guoqiang Zhao[1*], Hao Liu[1]
[1]Beijing Key Laboratory of Millimeter Wave and Terahertz Technique, School of Integrated Circuits and Electronic Beijing Institute of Technology, Beijing, China

C0595 ENHANCED RADAR TARGET DETECTION WITH LOCAL MINIMUMENTROPY CLEAN

Hao Liu[1], Chen Yao[1], Guoqiang Zhao[1*], Xingyu Chen[1]
[1]Beijing Key Laboratory of Millimeter Wave and Terahertz Technique, School of Integrated Circuits and Electronic Beijing Institute of Technology, Beijing, China

C0600 MICRO-DOPPLER-BASED METHOD FOR ROTORPARAMETER ESTIMATION UNDER SHORT DWELLTIME CONDITIONS

Xianjun Xie*, Zhou Ye, Kun Qin, Peiyi Fan
Shanghai Aerospace Electronic Technology Institute, Shanghai, China

C0614 END-TO-END RADAR SIGNAL SORTING BASED ONSEMANTIC SEGMENTATION

Tao Chen[1], Jiashuai Li[1], Limin Guo[1*], Yu Lei[1]
[1]College of Information and Communication Engineering, Harbin Engineering University, Harbin, China

C0617 TIME REVERSAL MIMO DETECTOR IN CLUTTERENVIRONMENTS

Hao Lian[1], Minglei Yang[2*]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, China

C0628 PARAMETER ESTIMATION USING COMPRESSED DISTRIBUTED POLARIZED SENSITIVE ARRAY

Rui Liu[*], Xiaoxiao Wei
Key Laboratory of Advanced Marine Communication and Information Technology, Ministry of Industry and Information Technology,
AVIC United Technology Center for Electromagnetic Spectrum Collaborative Detection and Intelligent cognition,
College of Information and Communication Engineering, Harbin Engineering University, No. 145 Nantong St., Harbin, China

C0636 INCORPORATING DOPPLER VELOCITYMEASUREMENTS IN ORIENTATION-BASEDEXTENDED OBJECT TRACKING

Zheng Wen[1], Le Zheng[1]
[1]Radar Research Laboratory, School of Information and Electronics, Beijing Institute of Technology, Beijing100081, China

C0649 EFFICIENT BEAMFORMING METHOD IN IRS-ASSISTED SPARSEUAV SWARMS

Hao Yang[1], Peng Chen[1*], Xinfan Zhu[1]
[1]State Key Laboratory of Millimetre Waves, Southeast University, China

C0651 ENHANCING MILLIMETER-WAVE RADAR OBJECT DETECTION WITHA 3D TRANSFORMER MODULE ON RANGE-AZIMUTH TENSORS

Han Wu[1], Yinan Zhao[1*], Mingqi Song[2], Tianhao Han[3], Xiang Feng[3]
[1]School of Communication Engineering, Hangzhou Dianzi University, Hangzhou, China
[2]School of Electronics and Information Engineering, Harbin Institute of Technology, Harbin, China
[3]School of Information Science and Engineering, Harbin Institute of Technology, Weihai, China

C0658 CAP-NET: A CROSS-ATTENTION PROTOTYPE NETWORK FORROBUST FEW-SHOT ISAR TARGET CLASSIFICATION

Minjia Yang[1*], Bowen Chen[1], Jinqi Wang[1], Xueru Bai[1]
[1]National Key Laboratory of Radar Signal Processing, Xi'an, China

C0659 MSTC-NET: MULTI-SCENES SAR TARGET CLASSIFICATIONNETWORK FOR CLASS INCREMENTAL LEARNING

Kai Jiang[1*], Xueru Bai[1]
[1]National Key Laboratory of Radar Signal Processing, Xi'an, China

C0662 FEW-SHOT SAR TARGET CLASSIFICATION WITH CLPN: A PROTOTYPICAL NETWORK COMBINING UNSUPERVISED CONTRASTIVE LEARNING

Bowen Chen[1*], Minjia Yang[1], Xueru Bai[1]
[1]National Key Laboratory of Radar Signal Processing, Xi'an, China

C0671 CLASS-INCREMENTAL SAR AUTOMATIC TARGET RECOGNITIONUSING SIMULATED DATA

Yanjie Xu[1], Hao Sun[1*], Siqian Zhang[1], Kefeng Ji[1], Gangyao Kuang[1]
[1]National University of Defense Technology, Changsha, China

C0688 DUAL BAND HRRP SCATTERING CENTERESTIMATION VIA ATOMIC NORM MINIMIZATION

Na Zhou[1,2,3,4], Yu-ang Zhang[1,2,3], Yanhua Wang[1,2,3,4,5], Liang Zhang[1,2,3*]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China
[2]The Electromagnetic Sensing Research Center of CEMEE State Key Laboratory,Beijing Institute of Technology, Beijing 100081, China
[3]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing 100081, China
[4]Beijing Institute of Technology Chongqing Innovation Center, Chongqing 401120, China
[5]Advanced Technology Research Institute, Beijing Institute of Technology, Shandong 250300, China

C0689 DST-NET: AN ALGORITHM BASED ON MULTISCALE FEATURE FOR SHIP TARGET DETECTIONIN SAR IMAGES

Nan Su[1], Shiyu Fu[1], Jiayue He[1], Guangjun He[2*], Pengming Feng[2], Yiming Yan[1], ShouFeng[1], Chunhui Zhao[1]
[1]College of Information and Communications Engineering, Harbin Engineering University, Harbin, China
[2]State Key Laboratory of Space-Ground Integrated Information Technology, Space Star Technology Corporation limited, Beijing, China

C0719 REGIONALIZED ENERGY FUNCTION SEGMENTATION METHODBASED ON GMTRJ ALGORITHM

Zishan Lu[1], Yu Wang[1], Xue Shi[1*]
[1]College of Geomatics and Geoinformation, Guilin University of Technology, Guilin, 541004, China

C0725 NEURAL NETWORK AIDED FAST COHERENTDETECTION METHOD FOR HIGH-SPEEDMANEUVERING TARGET

Haonan Zhang[1], Zhi Sun[1*], Xiao Li[1], Jiangyun Deng[1], Chen Cheng[1], Xingtao Jiang[1], Guolong Cui[1]
[1]School of Information and Communication Engineering, University of Electronic Science and Technology of China, Chengdu, the People's Republic of China

C0733 A NOVEL SIGNAL PRESENCE DETECTION STRATEGY INBEAMFORMING SPECTRA FOR WEAK SIGNAL DETECTION

Kehao Zhang[1], Silong Tang[2], Ning Liu[3], Kai Chang[3], Yipeng Liu[1], Qun Wan[1,4*]
[1]University of Electronic Science and Technology of China Chengdu, China
[2]TongFang Industrial Co., Ltd
[3]Northern Institute of Electronic Equipment Beijing, China
[4]Precision Measurement Radar System Technology Key Laboratory of Sichuan Province

C0735 AUTOMATIC MODULATION RECOGNITION BASEDON SST AND DEEP LEARNING MODEL

Jianbing Xiang[1,2*], Xiaolei Lv[1,2], Bing Han[1,2], Lihua Zhong[1,2], Linlin Fang[1,2]
[1]Aerospace Information Research Institute, Chinese Academy of Sciences, Beijing, China
[2]Key Laboratory of Technology in GeoSpatial Information Processing and Application System, Aerospace Information Research Institute, Chinese Academy of Sciences, Beijing, China

C0736 A NOVEL INSECT WINGBEAT FREQUENCY EXTRACTIONALGORITHM BASED ON AMBIGUITY FUNCTION

Ye Zihan[1,3], Li Weidong[1,2,3*], Wang Rui[1,2,3], Zhang Fan[1,3],
Wang Jiangtao[1,3], HuCheng[1,2,3]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China;
[2]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, Shandong 250300, China;
[3]Beijing Key Laboratory of Real-Time Information Processing Technology of Embedded, Beijing 100081, China;

C0737 STRUCTURAL PRUNING FOR LIDAR 3D DETECTION NETWORK BY DEPENDENCY GRAPH

Hongfei Xu[1], Yaowen Li[1], Yu Liu[2*], Zhizhuo Jiang[1]
[1]Tsinghua Shenzhen International Graduate School, Tsinghua University, Shenzhen, China
[2]Department of Electronic Engineering, Tsinghua University, Beijing, China

C0754 DESIGN AND IMPLEMENTATION OF A MULTICORE PARALLEL LOW ILLUMINATIONENHANCED TARGET DETECTION SYSTEM

Fang Han[1], Meini Tang[2], Xi Wei[2], Xiyan Dong[2], Quanwen Qi[1], Shidong Lv[2], Zicheng Liu[3],Xinghua Wang[2,4], Xiaoran Li[2,4*]
[1]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing, Zhejiang, China.
[2]School of Integrated Circuits and Electronics, Beijing Institute of Technology, Beijing, China.
[3]BIT Chongqing Institute of Microelectronics and Microsystems, Chongqing, China.
[4]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, Shandong, China.

C0756 FREQUENCY ANALYSIS METHOD FOR SAR TARGET CLASSIFICATIONUSING CONVOLUTIONAL NEURAL NETWORKS

Kangwei Li, Di Wang, Daoxiang An
[1]National University of Defense Technology, Changsha, China

C0765 RADAR TARGET HRRP SEGMENTATIONUSING DIFFUSION MODEL

Jiaqi Liu[1,2,3,4], Mingchen Yuan[1,2,3], Liang Zhang[1,2,3*], Yanhua Wang[1,2,3,4,5]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China
[2]The Electromagnetic Sensing Research Center of CEMEE State Key Laboratory,Beijing Institute of Technology, Beijing 100081, China
[3]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing 100081, China
[4]Beijing Institute of Technology Chongqing Innovation Center, Chongqing 401120, China
[5]Advanced Technology Research Institute, Beijing Institute of Technology, Shandong 250300, China

C0770 ENVIRONMENTAL INFORMATION PERCEPTIONOF LIDAR FOR AUTONOMOUS VEHICLENAVIGATION PLANNING

Xiaozhi Li[1,3], Jian Li[1,2*], Fei Guo[1], Zihuan Hao[1,2], Liang Chen[1,3]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Key Laboratory of Electronic and Information Technology in Satellite Navigation (Beijing Institute of Technology), Ministry of Education, Beijing, China
[3]Innovative Equipment Research Institute of Beijing Institute of Technology in Sichuan Tianfu New Area, Chengdu, China

C0774 WEAK TARGET DETECTION VIA TEXTUREINFORMATION ON TIME-FREQUENCYMANIFOLDS

Xixi Chen[1*], Weike Feng[1*], Qun Zhang[2], Yifan Guo[3]
[1]Early Warning and Detection Department, Air Force Engineering University, Xi'an, China
[2]Information and Navigation College, Air Force Engineering University, Xi'an, China
[3]School of Marine Science and Technology, Northwestern Polytechnical University, Xi'an, China

C0780 METHOD AND IMPLEMENTATION OF REGION PROPOSALSEXTRACTION FOR COMPLEX SCENES

Pang Kaiyu[1], Jing Donglin[1], Han Yuqi[1], Deng Chenwei[1*]
[1]Beijing Institute of Technology, Beijing, China

C0781 SCALE-AWARE MEMORY-AUGMENTEDAUTOENCODER FOR HYPERSPECTRAL SUB-PIXELANOMALY DETECTION

Yi Liu[1], Xingshi Luo[1], Wenzheng Wang[1*]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing, China

C0784 RESEARCH ON OIL SPILL DETECTION ALGORITHM FOR MARINE RADARECHO IMAGE

Haoran Shen[1,2], Jian Li[1,2*], Liang Chen[1,3], Xiaozhi Li[1,2]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Key Laboratory of Electronic and Information Technology in Satellite Navigation(Beijing Institute ofTechonolgy), Ministry of Education, Beijing, China
[3]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, China

C0791 ASC-SMCNN: SAR TARGET CLASSIFICATION METHOD GUIDEDBY ATTRIBUTE SCATTERING CENTER AND SEPARABILITY MEASURES

Zhang Yifan[1,2], Gao Xunzhang[1], Zhang Shuanghui[1*], Li Xiang[1]
[1]College of Electronic Science, National University of Defence Technology, Changsha, China
[1]College of Information Communication, National University of Defence Technology, Wuhan, China

C0818 IDENTIFICATION AND POSITIONING OF UAV INSHELTERED AREAS OF BUILDINGS BASED ONFMCW RADAR

Wanyu Zhang[1,2], Xiaolu Zeng[*1,2], Xiaopeng Yang[1,2], Luying Chen[1,2], Shichao Zhong[1,2]
[1]Beijing Institute of Technology, Beijing,10081, China
[2]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing, [3]14001, China

C0834 A LIGHTWEIGHT METHOD FOR INFRARED SMALLTARGET DETECTION

Yingrui Zhao[1], Wei Song[2*]
[1]School of Information and Communication Engineering, Beijing Information Science and Technology University, Beijing, China
[2]School of New Media, Beijing Institute of Graphic Communication, Beijing, China

C0841 A TWO-CHANNEL MULTI-STAGE FEATUREFUSION MEHOD FOR SAR SYNTHETIC APERTURERADAR CLASSIFICATION

Yun Liu, Ye Li , Huai-Zhang Liao, Jing-Yuan Xia*, Xun-Zhang Gao
College of Electronic science National University of Defensive Technology Changsha China

C0843 MOVING TARGET DETECTION BASED ON A REDUCED-DIMENSIONALMODEL IN FDA-MIMO RADAR

Changshan He[1,2*], Bang Huang[3], Mingming Xu[2], Xiaorui Li[2],
Xiang Lu[2], RunningZhang[2]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Institute of Remote Sensing Satellite, China Academy of Space Technology, Beijing, China
[3]School of Information and Communication Engineering, University of Electronic Science and Technology of China, Chengdu, China

C0848 IMPROVED YOLOV5 FOR CONCEALED OBJECTDETECTION IN HUMAN BODY MILLIMETER WAVEIMAGES

Yuqi Li[1,2], Weixian Tan[*1,2], Pingping Huang[1,2], Yun Su[1,2], Yifan Dong[1,2], Yanmin Chen[3], Jianxin Zhang[3], Yuxin He[1,2]
[1]Inner Mongolia University of Technology, Hohhot 010051, China
[2]Inner Mongolia Key Laboratory of Radar Technology and Application, Hohhot 010051, China
[3]OBE Terahertz Science and Technology (Beijing) Co., Ltd, Beijing 100023, China

C0856 BEHAVIOR STATE RECOGNITION OF COMPLEX WINGBEATPATTERNS TARGETS BASED ON BI-LSTM

Lianjun Wang[1,2,3], TianRan Zhang[4], Weidong Li[1,2,3*], Rui Wang[1,2,3], Cheng Hu[1,2,3]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing 100081,China
[2]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, Shandong 250300, China
[3]Beijing Key Laboratory of Embedded Real-time Information Processing Technology (Beijing Institute ofTechnology), Ministry of Education, Beijing 100081, China
[4]Beijing Institute of Electronic System Engineering, Beijing 100854, China

C0864 A NOVEL ALGORITHM FOR MANEUVERING TARGET COHERENT INTEGRATION BASED ON SECOND-ORDER KEYSTONE ANDRADON FOURIER TRANSFORM

Jiefang Yang[1,2*], Yunhua Zhang[1,2], Yunpeng Mi[1,2], Ao Xiong[1,2]
[1]CAS Key Laboratory of Microwave Remote Sensing, National Space Science Center, Chinese Academy of Sciences, Beijing, China
[2]The University of Chinese Academy of Sciences, Beijing, China

C0867 IMPROVED YOLOV7 FOR SMALL OBJECTDETECTION IN HUMAN BODY MILLIMETER WAVEIMAGES

Yuxin He[1,2], Weixian Tan[1,2*], Pingping Huang[1,2], Yun Su[1,2], Yifan Dong[1,2], Yanmin Chen[3],Yuqi Li[1,2]
[1]Inner Mongolia University of Technology, Hohhot 010051, China
[2]Inner Mongolia Key Laboratory of Radar Technology and Application, Hohhot 010051, China
[3]OBE Terahertz Science and Technology (Beijing) Co., Ltd, Beijing 100023, China

C0870 IMPROVED YOLOV5 FOR SHIP ROTATINGFRAMETARGET DETECTION IN SARIMAGES

Shihao Tian, Pingping Huang*, Weixian Tan, Yun Su, Yaolong Qi, Wei Xu, YifanDong
Inner Mongolia University of Technology, Hohhot 010051, China
Inner Mongolia Key Laboratory of Radar Technology and Application, Hohhot 010051, China

C0875 SCENE-ADAPTIVE INFRARED SMALL TARGET DETECTION METHOD

Zhuokai Li[1], Zipeng Zhang[1],Wenzheng Wang[1*]
[1]Beijing Institute of Technology, Beijing. China

C0911 IDENTIFICATION OF LINEAR STRUCTURES INSYNTHETIC APERTURE RADAR IMAGING

Yuhan Wen[1*], Congrong Han[1], Zihang Wang[2], Hongguang Lan[1]
[1]Beijing Institute of Electronic System Engineering, 52 Yongding Road, Haidian District, Beijing, China
[2]China Agricultural University, 17 Qinghua East Road, Haidian District, Beijing, China

C0915 THE UAV REMOTE SENSING VEHICLE TRACKINGBASED ON IMPROVED FAIRMOT

Hao Fang[1], Jiapeng Wu[1], Linbo Tang[1*]
[1]School of Information and Electronics, Beijing Institude of Technology, Beijing, China

C0921 IMPROVED AXIS ROTATION INFORMATIONGEOMETRY ALGORITHM FOR HIGH-SPEED TIMEVARYING TARGET DETECTION

Yanjun Hao[123*], Wei Liu[123]
[1]Nanjing Research Institute of Electronics Technology, Nanjing 210039, China
[2]Key Laboratory of IntelliSense Technology, CETC, Nanjing 210039, China
[3]Jiangsu Provincial Key Laboratory of Detection and Perception Technology, Nanjing 210039, China

C0954 RADAR HRRP CLUTTER SUPPRESSION METHODBASED ON CASCADE OF ANOMALY DETECTIONAND BINARY ACCUMULATION

Zheng Wei, Yong Du, Yilin Li, Hui Liu, Pengcheng Guo, Minggang Zhang
Xi'an Electronic Engineering Research Institute, Xi'an, China

C0962 MICRO-DOPPLER FEATURE EXTRACTIONTHROUGH HELICOPTER ROTOR MODULATION

Xiaochen Zhao[1*], Hang Yuan[1], Zhihao Wang[1], Xiaonan Dai[1]
[1]Information and Navigation College, Air Force Engineering University, Xi'an, China

C0980 INTELLIGENT IDENTIFICATION METHOD OFMIGRATORY ANIMALS BASED ON WEATHERRADAR

Zimo Yang[1], Kai Cui[1,3,4*], Cheng Hu[1,2], Rui Wang[1,2], Xiaogang Zhang[1], Ping Zhang[1]
[1]Radar Research Laboratory, School of Information and Electronics, Beijing Institute of Technology, Beijing,China, 100081
[2]Key Laboratory of Electronic and Information Technology in Satellite Navigation, BeijingInstitute of Technology, Ministry of Education, Beijing, China, 100081
[3]School of Computer Sciences, Beijing Institute of Technology, Beijing, China, 100081
[4]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, China, 250300

C0993 MODEL-BASED RAO AND WALD DETECTORS FORRANGE-SPREAD TARGETS IN HETEROGENEOUSCLUTTER ENVIRONMENT

Ju Wang[1], Song Duan[1], Wenjing He[1*], Yi Zhong[1]
[1]School of Information and Electronics Beijing Institute of Technology, Beijing, China

Poster Session 2: SAR and ISAR

Time: 15: 30 - 16: 30, December 4, 2023
Place: Liangjiang Grand Ballroom 1+2
Chair: Dr. Yangkai Wei, Beijing Institute of Technology, China
Dr. Linghao Li, Beijing Institute of Technology, China
Dr. Pingping Lu, Aerospace Information Research Institute, Chinese Academy of Sciences, China

D0009 **REGULARIZED ORTHOGONAL MATCHING PURSUIT BASED AIRBORNE TOMOGRAPHIC SAR INVERSION**

Weihao Xu[1,2], Shuang Jin[1,2], Jing Feng[1,2], Jin Xu[1,2], Jingjing Zhang[1,2], Hui Bi[1,2*]
[1]College of Electronic Engineering, Nanjing University of Aeronautics and Astronautics, Nanjing, China
[2]Key Laboratory of Radar Imaging and Microwave Photonics, Ministry of Education, Nanjing University of Aeronautics and Astronautics, Nanjing, China

D0011 **A SCIL-BASED TRANSFORMER FOR POLSAR IMAGE CLASSIFICATION**

Xinyue Xin[1], Ming Li[1*], Yan Wu[2], Peng Zhang[1], Dazhi Xu[1], Jia Zheng[1]
[1]the National Laboratory of Radar Signal Processing, School of Electronic Engineering, Xidian University, Xi'an, China
[2]the Remote Sensing Image Processing and Fusion Group, School of Electronic Engineering, Xidian University, Xi'an, China

D0013 **A FAST SAR IMAGE TEMPLATE MATCHING BASED ON TIME-FREQUENCY ANALYSIS**

Yikun Zhao[1], Xuanmin Zhang[1], Lei Guo[1], Gang Chen[1], XingdaoWang[2*]
[1]China Academy of Space Technology, Xi'an Branch, Xi'an, China
[2]Suzhou Changfeng Avionics CO., LTD, Suzhou, China

D0037 **3-D RECONSTRUCTION OF SPACE TARGET BASED ON ISAR IMAGE SEQUENCES**

Chunxiao Wu[1,2,3*], Yingni Hou[1,2,3], Qiang Cheng[1,2,3], Yuhao Yang[1,2,3]
[1]Nanjing Research Institute of Electronics Technology, Nanjing 210039, China
[2]Key Laboratory of IntelliSense Technology, CETC, Nanjing 210039, China
[3]Jiangsu Provincial Key Laboratory of Detection and Perception Technology, Nanjing 210039, China

D0055 **POLARIMETRIC HOLOGRAPHIC SAR 3-D IMAGING BASED ON L21-NORM REGULARIZATION: INITIAL RESULT**

Jing Feng[1,2], Shuang Jin[1,2], Weihao Xu[1,2], Jin Xu1,2, Hui Bi[1,2*]
[1]College of Electronic and Information Engineering, Nanjing University of Aeronautics and Astronautics, Nanjing, China
[2]Key Laboratory of Radar Imaging and Microwave Photonics, Ministry of Education, Nanjing University of Aeronautics and Astronautics, Nanjing, China

D0091 THREE-DIMENSIONAL IMAGING OF SPATIAL SPINNING GROUP TARGETS BASED ONEXTENDED KALMAN FILTER AND INVERSE RADON TRANSFORM

Junting Yang[1], Yong Wang[2*]
[1]School of Electronics and Information Engineering, Harbin Institute of Technology, Harbin, China
[2]School of Electronics and Information Engineering, Harbin Institute of Technology, Harbin, China

D0094 FOUNDATION PIT DEFORMATION MEASUREMENT TECHNIQUE BASED ON GROUND-BASED INTERFEROMETRIC RADAR

Changjun Wang[1], Hanpu Zhou[2], Jian Wang[1], Jiake Gao[3],
Yunkai Deng[4*], Weiming Tian[5]
[1]Beijing Building Research Institute Co., Ltd.of CSCEC, Beijing China, 100076
[2]Radar Research Lab, School of Information and Electronics, Bejing Institute of Technology, Bejing, People's Republic of China
[3]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing Institute of Technology, Beijing, China
[4]Chongqing Innovation Center，Beijing Institute of Technology, China
[5]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan 250300, China

D0109 A NOVEL APPROACH TO PHASE ERROR ESTIMATION IN MULTI-CHANNEL SCAN SAR

Yini Lv[1, 2, 3], Lihua Zhong[1, 2*], Mingyang Shang[1], Xiaolan Qiu[1], Chibiao Ding[1, 3]
[1]Aerospace Information Research Institute, Chinese Academic of Sciences, Beijing, China
[2]Key Laboratory of Technology in Geo-Spatial Information Processing and Application Systems, Chinese Academy of Sciences, Beijing, China
[3]School of Electronic, Electrical and Communication Engineering, University of Chinese Academy of Sciences, Beijing, China

D0122 YOLO-MSSD: MULTI-SCALE SHIP DETECTION IN SAR IMAGES BASED ON SPATIAL AND CHANNEL ATTENTION

Bilang Chen[1], Zhizhuo Jiang[1], Yu Liu[2*], You He[2]
[1]Shenzhen International Graduate School, Tsinghua University, Shenzhen 518055, China
[2] Department of Electronic Engineering, Tsinghua University, Beijing 100084, China

D014 SUPPRESSION OF DEFOCUS ALONG AZIMUTH DIMENSION FOR THZ SAR IMAGING BASED ON ADMM FRAMEWORK

Siyu Chen[1], Yong Wang[2*], Bin Zhao[3]
[1]School of Electronics and Information Engineering, Harbin Institute of Technology, Harbin, China
[2]School of Electronics and Information Engineering, Harbin Institute of Technology, Harbin, China
[3]School of Electronics and Information Engineering, Harbin Institute of Technology, Harbin, China

D0142 DESIGN OF SAR IMAGING SYSTEM BASED ON MPSOC + FPGA WITH OPTIMIZATION STRATEGIES FOR CHIRP SCALING FACTOR COMPUTATION

ZhiHui Zhong[1,2], TingTing Qiao[1,2],YiZhuang Xie[1,2*], HuShan Lv[1,2]
[1]Radar Research Lab, Schoolof Information and Electronics, Beijing Institute of Technology, Beijing 100081, China
[2]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing 100081, China

D0143 THE ADAPTIVE IMAGING OF OCEAN SCENE BASED ON HIGH RESOLUTION SAR SUB-LOOK ANALYSIS

Yan Jin[1,2*], Xiaolan Qiu[1,2,3], Zezhong Wang[1,2]
[1]Suzhou Key Laboratory of Microwave Imaging, Processing and Application Technology, Suzhou, China;
[2]Suzhou Aerospace Information Research Institute, Suzhou, China3Aerospace I nformation Research Institute (AIR), Chinese Academy of Sciences (CAS), Beijing, China

D0150 SPARSE APERTURE ISAR IMAGING METHOD BASED ON DA-ISTA NETWORK

Zhiliang Pan*, Panhe Hu, Xiaolong Su, Zhen Liu
College of Electronic Science and Technology, National University of Defense Technology, Changsha, China.

D0156 LOW-OVERSAMPLED STAGGERED SAR IMAGING IN PRESENT OF ARANDOM PRI VARIATION STRATEGY

Wenjiao Chen[1], Jiwen Geng[2], Fanjie Meng[1], Weigang Zhu[1]
[1]Space Engineering University, Beijing, China
[2]Southeast University, Nanjing, China

D0165 AN EFFICIENT RANGE MIGRATION ALGORITHM FOR HIGH RESOLUTION MEO SAR IN HIGHLY SQUINTED CONDITION

XiaoBei Wang, Lin Liu, Yabo Liu, Yunhua Luo,Yao Zhao,Hao Sun,
Shuai Jiang*, Zhongjun Yu
The Department of Microwave Microsystems, Aerospace Information Research Institute, Chinese Academy of Sciences, Beijing, 100094, China

D0199 MONOPULSE FORWARD-LOOKING3DIMAGINGALGORITHMBASED ONSTFT

Yufeng Liu[1], Yong Wang[2]
[1]School of Electronics and Information Engineering, Harbin Institute of Technology, Harbin, China
[2]School of Electronics and Information Engineering, Harbin Institute of Technology, Harbin, China

D020 OBJECTS DETECTION UTILIZING MINIMUM ENTROPY METHOD FOR CHANNEL ERROR CALIBRATION

Zheng Haitao[1], Han Huipeng[1],Xiao Xin[1], Houjun Sun[2], Yin Weizhen[1*]
[1]China China Academy of Space Technology, Beijing, China
[2]Beijing Institute of Technology, Beijing, China

D0218 THE VIDEO SAR SIMULATION ALGORITHM BASED ON THE DEM AND SBR

Yongqiang Zhang[1,2], Zhiyong Song[2v] ,Gang Lei[1]
[1]XI'AN Electronic Engineering Research Institute, XI'AN, China;
[2]National Key Laboratory of Science and Technology on Automatic Target Recognition, College of Electronic Science, National University of Defense Technology, Changsha, China;

D0249 3D SPARSE SAR IMAGING BASED ON COMPLEX NONCONVEX PENALTY FUNCTION

Yangyang Wang[1*], Jing Gao[1], Jinjie Yao[1], Xu Zhan[2], Jiansheng Bai[1], Kun Li[1]
[1]School of Information and Communication Engineering, North University of China, Taiyuan, China
[2]School of Information and Communication Engineering, University of Electronic Science and Technology of China, Chengdu, China

D025 ISAR IMAGING METHOD FOR SPACE MANEUVERING TARGET BASED ON PARAMETER ESTIMATION

Chengxiang Zhang[1,2],Yin Xiang[1,2*],Tianyi Zhang[3],Yu Liu[1,2],Shining Li[1,2], Zhiming Wu[1,2]
[1]Beijing Institute of Technology Chongqing Innovation Center, Chongqing, China
[2]Chongqing Key Laboratory of Novel Civilian Radar, Chongqing, China
[3]School of Information and Electronics, Beijing Institute of Technology, China

D0266 SAR AIRCRAFT DETECTION IN LOW SCNR ENVIRONMENT USING AN IMPROVED FASTER RCNN WITH COHERENT SCATTERING ENHANCEMENT

Xinzheng Zhang[1*], Dong Hu[1], Yuqing Luo[1], Jinlin Li[1], Hui Zhu[1], Mengke Yan[1]
[1]School of Microelectronics and Communication Engineering, Chongqing University, Chongqing, China

D0305 AN AIRBORNE P-BAND POLARIMETRIC SYNTHETIC APERTURE RADAR TOMOGRAPHY CAMPAIGN IN HILLY AREAS

Xuelian Zhong[1*], Xi Chen[1]
[1]Key Laboratory of Aperture Array and Space Application, No.38 Research Institute, China Electronics Technology Group Corporation, HeFei, China

D0311 EDGE DETECTION IN POLSAR IMAGES BASED ON POLARIMETRIC NONSUBSAMPLED CONTOURLET TRANSFORM

Huiping Lin[1*], Junjun Yin[2], Hongmiao Wang[3], Jian Yang[3]
[1]Key Laboratory for Information Science of Electromagnetic Waves (MoE), Fudan University, Shanghai, China
[2]School of Computer and Communication Engineering, University of Science and Technology Beijing, China
[3]Department of Electronic Engineering, Tsinghua University, Beijing, China

D0313 A NEW DUAL-FREQUENCY POLARIMETRIC SAR ON HELICOPTER

Qi Li, Jinwei Li, Dong You, Jiao Liu, Sheng Zhang, Shengyuan Li,
Caipin Li and ChongdiDuan
Xi'an Institute of Space Radio Technology, Shaanxi, Xi'an 710100, China

D0314 A DERAMP DOPPLER PARAMETER ESTIMATION METHOD FOR SPACEBORNE SLIDING SPOTLIGHT SAR

Min Chen[1,2,3,4,5], Mingyang Shang[1,3], Xiaolan Qiu[1,3,4*], Xuejiao Wen[1,3]
[1]Suzhou Key Laboratory of Microwave Imaging, Processing and Application Technology, Suzhou 215123, China
[2]Key Laboratory of Technology in Geo-spatial Information Processing and Application Systems, Chinese Academy of Sciences, Beijing 100190, China
[3]Suzhou Aerospace Information Research Institute, Suzhou 215123, China
[4]Aerospace Information Research Institute, Chinese Academy of Sciences, Beijing 100094, China
[5]School of Electronic, Electrical and Communication Engineering, University of Chinese Academy of Sciences, Beijing 100049, China

D0315 A SIGNAL RECONSTRUCTION ALGORITHM FOR DISTRIBUTED MULTICHANNEL SQUINT MISSLE-BORNE SAR

Weijin Hu[1], Ning Li[2*], Mengdao Xing[1,2]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, China
[2]Academy of Advanced Interdisciplinary Research, Xidian University, Xi'an, China

D0324 THREE DIMENSIONAL MILLIMETER WAVE MIMO SYNTHETIC APERTURE RADAR IMAGING

Xinyuan He[1], Penghui Chen[1*], Jun Wang[2], Yujing Bai[1]
[1]School of Electronic and Information Engineering, Beihang University, Beijing, China
[2]Hangzhou Innovation Institute, Beihang University, Hangzhou, China

D0325 CHARACTERIZATION AND MITIGATION OF RFI ARTIFACTS IN OPERATIONALLY PROCESSED LUTAN-1 IMAGERY

Yifei Liu[1], Mingliang Tao[1*], Tao Li[2], Yanyang Liu[3], Junli Chen[4]
[1]Northwestern Polytechnical University, Xi'an, China
[2]Land Satellite Remote Sensing Application Center, Ministry of Natural Resources of P.R. China, Beijing, China
[3]Shanghai Institute of Satellite Engineering, Shanghai, China.
[4]Shanghai Academy of Spaceflight Technology, Shanghai, China

D0326 FAST MULTISCALE SAR IMAGES STITCHING BASED ON IMPROVED APAP AND OTSU ALGORITHMS

Chenyu Zhu, Xiaoyu Cong*, Yubing Han, Weixing Sheng
School of Electronic and Optical Engineering, Nanjing University of Science and Technology, Nanjing, China

D0341 HIGH-RESOLUTION SLIDING-SPOTLIGHT SPACEBORNE SAR IMAGING ALGORITHM FOR KA-BAND

Feng Xiao[1], Maoqiang Jing[2*], Dehua He[3], Guo Zhang[2], JiaGuo Zu[3], SongBai Yu[3], HanWeiSun[1], XinMin Wang[1]
[1]Beijing Institute of Radio Measurement, Beijing, China
[2]State Key Laboratory of information Engineering in Surveying, Mapping and Remote Sensing of Wuhan University, Wuhan, China
[3]Institute of Remote Sensing Satellites (IRSS) of the China Academy of Space Technology (CAST), Beijing, China

D0352 ANALYSIS OF UNCONTROLLED GEOMETRIC POSITIONING ACCURACY FOR L-BAND DIFFERENTIAL INTERFEROMETRIC SAR SATELLITE

Xiaoyu Shi[1], Heng Zhang[1*], Qi Chen[1], Huijuan Li[1], Lifeng Zhang[1], Yaqiu Yin[2]
[1]China Siwei Surveying and Mapping Technology Co.Ltd, Beijing, China
[2]Land Consolidation and Rehabilitation Center, Ministry of Natural Resource, Beijing, China

D0393 EQUIVALENT CENTROID-BASED METHOD FOR VELOCITY AND POSITION ESTIMATION OF WEAK DEFOCUSED MARITIME TARGET

Siyu Xu[1], Bing Sun[1*], Yuming Jiang[1], Haochuan Wang[1], Yaowei Kang[1]
[1]School of Electronic and Information Engineering, Beihang University, Beijing, China

D0397 DISCUSSION ON THE UNIFIED FEATURE PARAMETER EXTRACTION FRAMEWORK FOR MULTI-POLARIMETRIC SAR

Wentao Hou[1], Zheng Lu[1*], Yashi Zhou[1], Dehua He[1], Xiaolei Han[1]
[1]Institute of Remote Sensing Satellite, China Academy of Space Technology, Beijing, China

D0400 ISAR SPARSE IMAGING EXPLOITING THE IMPROVED FULLY CONVOLUTIONAL NEURAL NETWORK

Huang Yuling[1], Pan Liangyu[1], Wang Zeyu[1], Dong Yuchen[1], Hu Changyu[1,2*]
[1]College of Electronic Information Engineering, Wuxi University, Wuxi 214000, China；
[2]Key Laboratory of Radar Imaging and Microwave Photonics Technology of the Ministry of Education, Nanjing University of Aeronautics and Astronautics, Nanjing 210016, China)

D0406 FOCUSING SPACEBORNE-MISSILE BISTATIC FORWARD-LOOKINGSAR USING MODIFIED AZIMUTH NONLINEAR CHIRP SCALING

Yuzhou Liu[1], Yachao Li[1*], Xuan Song[1], Xuanqi Wang[1], Peiyun An[1], Pei Ye[2]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an 710071, China
[2]Academy of Advanced Interdisciplinary Research, Xidian University, Xi'an 710071, China

D0411 RESEARCH ON REAL-TIME IMAGING METHOD OF SPACEBORNE SAR BASED ON EMBEDDED GPU

Shuai Wang[1*], Hongliang Lu[1], Jili Sun[1,2], Xinzhi Yao[1], Wen Sun[1]
[1]Qilu Aerospace Information Research Institute, 250000 Jinan, China
[2]Aerospace Information Research Institute, Chinese Academy of Sciences, 100194 Beijing, China

D0423 PARAMETER ESTIMATION OF SATELLITE PARABOLIC ANTENNA USING ISAR IMAGES

Xing-Chao Cui, Yao-Wen Fu, Si-Wei Chen[*],
College of Electronic Science and Technology, National University of Defense Technology, Changsha, China

D043 SAR IMAGING WITH TRAVELING WAVE ARRAY ANTENNA

Wenshuai Zhai[1,2*], Yunhua Zhang[1,2]
[1]National Space Science Center, Chinese Academy of Sciences, Beijing, China
[2]CAS Key Laboratory of Microwave Remote Sensing, Beijing, China

D0430 CULTIVATED LAND EXTRACTION USING SHORT TIME SERIES LT-1 SAR IMAGES

Ji Cheng[1,2*], Jie Ge[1,2], Yu Lei[1,2], Chen Li[1,2], Jiajia Yang[1,2],
[1]Sichuan Academy of Land Science and Technology (Sichuan Satellite Application Technology Center),Chengdu, China
[2]Key Laboratory of Investigation and Monitoring Protection and Utilization for Cultivated Land Resources,Ministry of Natural Resources, Chengdu, China

D0441 HIGH FREQUENCY DATA ACQUISITION DESIGN ALGORITHM BASED ON HIERARCHICAL OPTIMIZATION OF GNSS-INBSAR

Jiahao Gao[12], Feifeng Liu[12*], Ruihong Lv[12]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Key Laboratory of Electronic and Information Technology in Satellite Navigation (Beijing Institute of Technology), Ministry of Education, Beijing 100081, China

D0449 AN IMPROVED FUSION OF SAR AND VISIBLE IMAGES

Beile Niu[1], Liangqi Duan[2], Lanyu Li[3*]
[1]Nanjing Institute of Electronic Technology, Nanjing, China
[2]Nanjing Institute of Electronic Technology, No.8 Guorui Road, Nanjing Yuhua Economic Development Zone, Nanjing, China
[3]Nanjing Institute of Electronic Technology, No.8 Guorui Road, Nanjing Yuhua Economic Development Zone, Nanjing, China

D0453 AN EFFICIENT FAST FACTORIZED BACK-PROJECTED ALGORITHM FOR BISTATIC FORWARD-LOOKING SAR IMAGING

Lei Ran[1], Zeyuan Dong[1], Jiani Wang[1], Zheng Liu[1] and Rong Xie[1]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, 710071, Xi'an, China

D0455 SEMANTIC ENHANCED IMAGE BLENDING FOR SPACEBORNE SAR AIRPORT TARGETS

Yi Kuang[1], Yingbing Liu[1], Wei Hu[1*], Xiaoming Xie[1], Fan Zhang[1]
[1]College of Information Science and Technology, Beijing University of Chemical Technology, Beijing, China

D0460 SAR ATR BASED ON A DEEP FEATURE FUSION NETWORK WITH LIMITED MEASURED DATA

Xiaokun Sun[1], Yang Chen[1], Yifei Wang[1], Deliang Xiang[2,3], Yanjiao Yang[4], Canbin Hu[1*]
[1]College of Information Science and Technology, Beijing University of Chemical Technology, Beijing, China
[2]Beijing Advanced Innovation Center for Soft Matter Science and Engineering, Beijing University of ChemicalTechnology, Beijing, China
[3]Interdisciplinary Research Center for Artificial Intelligence, Beijing University of Chemical Technology,Beijing, China
[4]Beijing Electro-Mechanical Engineering Institute, Beijing, China

D0461 RAPID THREE-DIMENSIONAL RECONSTRUCTION FOR MICRO-MOTION TARGET BASED ON THE LOW-RANK STATE-SPACE

Mingming Jin[1], Jun Wang[1 2], Chi Zhang[3], Shaoming Wei[1*],Peijie Hao[4], Xiang Zhang[4], Yuge Han[5]
[1]School of Electronic Information Engineering, Beihang University, Beijing, China
[2]Hangzhou Innovation Institute of Beihang University, Hangzhou, China
[3]School of Aerospace Engineering, Tsinghua University, Beijing, China
[4]State Grid Yulin Electric Power Supply Company, Shaanxi, China
[5]Xian BV Smart Connectivity Technology Company, Shaanxi, China

D0491 OPTICAL AND SAR IMAGE REGISTRATION BASED ON THE INTERSECTION OF SHALLOW AND DEEP SCALE FEATURE POINTS

Canbin Hu[1], Runze Zhu[1], Xiaokun Sun[1*], Xinwei Li[1], Deliang Xiang[1], Yanjiao Yang[2]
[1]College of Information Science and Technology, Beijing University of Chemical Technology, Beijing, China
[2]Beijing Electro-Mechanical Engineering Institute, China

D0496 AN EFFICIENT COHERENCE-GUIDED CONVOLUTIONAL SPARSE CODING METHOD FOR INTERFEROMETRIC PHASE RESTORATION

Zhange Shi[1], Xiang Ding[1], Jian Kang[1*], Jialiang Cao[2], Yusong Bai[1], Anping Zhang[1]
[1]School of Electronic and Information Engineering, Soochow University, 215006, Suzhou, China
[2]School of Mathematics and Computer Science, Hebei Normal University for Nationalities, 067000, ChengDe, China

D0504 AUTOMATIC FUSION METHOD OF SAR IMAGE AND ELECTRONIC ROAD MAP BASED ON ROAD NETWORK EXTRACTION

Ziqiang Meng*, Chengjun Lu, Guanglei Zhang
AVIC Leihua Electronic Technology Institute, Wuxi 214063, China

D0507 A DEEP SIMILARITY-BASED NETWORK WITH COMPOUND REGULARIZATION FOR UNSUPERVISED POLSAR IMAGE CLASSIFICATION

Yixin Zuo[12*], Guangzuo Li[12], Wenjuan Ren[12]
[1]Research Department of Cyber-electromagnetic Space Information Technology, Chinese Academy of Sciences, Beijing 100094, China
[2]Aerospace Information Research Institute, Chinese Academy of Sciences, Beijing 100094, China

D0508 AN EFFICIENT AZIMUTH SAMPLING DESIGN NETWORK FOR SPARSE SAR IMAGING

Yuwei Wu[1,2,3,4,5], Zhe Zhang[2,3,4,5*] , Xiaolan Qiu[2,3,4,5], Yao Zhao[6], Weidong Yu[1,2,5], RuizhenSong[1,2,5]
[1]Department of Space Microwave Remote Sensing System, Beijing, 100090, China.
[2]Aerospace Information Research Institute, Chinese Academy of Sciences, Beijing 100094, China
[3]Key Laboratory of Intelligent Aerospace Big Data Application Technology, Suzhou 215123, China
[4]Suzhou Aerospace Information Research Institute, Suzhou 215123, China
[5]School of Electronic, Electrical and Communication Engineering, University of Chinese Academy of Sciences,Beijing 100049, China
[6]Guangdong University of Technology, Guangzhou, Guangdong, China.

D0537 SAR IMAGE SUPER-RESOLUTION AND TARGET DETECTION CLOSED-LOOP NETWORK WITH EDGE ENHANCEMENT AND FEATURE FEEDBACK

Jia Yujia, Zhang Siqian*, Tang Tao, Kuang Gangyao
College of Electronic Science and Technology, National University of Defense Technology, Changsha, China

D0567 CSAR-NET:A COMPLEX-VALUEDCONVOLUTIONALNEURAL NETWORK WITH CVMAXPOOL FOR SAR TARGET RECOGNITION

Dandan Zhao[1,3], Zhe Zhang[1,2*], Xiaolan Qiu[1,2], Jian Kang[4], Yirong Wu[1,2]
[1]Suzhou Key Laboratory of Microwave Imaging, Processing and Application Technology, and Suzhou Aerospace Information Research Institute, Suzhou, China
[2]Aerospace Information Research Institute, Chinese Academy of Sciences, Beijing, China.
[3]School of Information and Communication Engineering, Hainan University, Haikou 570228, China
[4]Soochow University, Suzhou, China

D0568 MARITIME MOVING TARGET LOCALIZATION METHOD BASED ON MULTI-STATION GNSS-S RADAR SAR IMAGES

Xin Liu[1], Zongqiang Liu[1*], Chuang Zhang[1], Zhenghuan Xia[1]
[1]State Key Laboratory of Space-Ground Integrated Information Technology, Beijing Institute of Satellite Information Engineering, Beijing, 100095, China

D0570 POL-ISAR SPACE TARGET COMPONENT SALIENCE CHARACTERISTIC WITH POLARIMETRIC ROLL-INVARIANT FEATURES

Ming-Dian Li[1], Shun-Ping Xiao[1], Si-Wei Chen[1*]
[1]College of Electronic Science and Technology, National University of Defense Technology, Changsha, China,

D0571 A FAST METHOD FOR FOCUSING AZIMUTH CYCLICALLY INTERRUPTED SAR ECHO VIA DECONVOLUTION

Yulei Qian[1*], Pengfei Leng[1], Zhenyu Jia[1], Xingchen Zhu[1], Huaxing Kuang[1], Yuanpeng Liu[1], Yimian Dai[2]
[1]Nanjing Marine Radar Institute, Nanjing, China
[2]Cellege of Computer Science and Engineering, Nanjing University of Science and Technology, Nanjing, China

D0582 SPACEBORNE SAR RESOLUTION ANALYSIS AND PARAMETER DESIGN METHOD BASED ON WAVENUMBER SPECTRUM

Quan Chen[1*], Shangtan Tu[1], Xin Lin[1*], Likang Xing[2], Chuheng Tang[1], Xingyi Su[1], YanJiang[1],
[1]Shanghai Institute of Satellite Engineering, Shanghai, China,
[2]The 54th Research Institute of China Electronics Technology Group Corporation, Shijiazhuang, China

D0585 ADAPTIVE THRESHOLDING FOR MULTI-TEMPORAL SAR INTERFEROMETRY

Siyu Cheng[1], Fengming Hu[1*]
[1]the Key Laboratory for Information Science of Electromagnetic Waves (MoE),Fudan University, Shanghai 200433, China

D0588 AN AUTOFOCUS NETWORK FOR MULTI-CHANNEL PHASE ERRORS WITH APPLICATION TO TOMOSAR IMAGING

Muhan Wang[1,2,3,4,5], Silin Gao[1,4,5], Zhe Zhang[2,3*] , Xiaolan Qiu[2,3,4]
[1]Key Laboratory of Technology in Geo-spatial Information Processing and Application System, Chinese Academyof Sciences, Beijing 100190, China
[2]Key Laboratory of Intelligent Aerospace Big Data Application Technology, Suzhou 215123, China
[3]Suzhou Aerospace Information Research Institute, Suzhou 215123, China
[4]Aerospace Information Research Institute, Chinese Academy of Sciences, Beijing 100094, China
[5]School of Electronic, Electrical and Communication Engineering, University of Chinese Academy of Sciences,Beijing 100049, China

D0590 ISAR IMAGING OF MANEUVERING TARGETS USING SYNCHRONOUS EXTRACTION TRANSFORMATION UNDER LOW SNR

Min Bao[1], Zhenhao Jia[1], Xin Du[2], Zhiyu Wang[1], Chengzeng Chen[3]
[1]School of Electronic Engineering, Xidian University, 710071, Xi'an, China
[2]Beijing Institute of Radio Measurement, 100854, Beijing, China
[3]Laboratory of Pinghu, Beijing Institute of Radio Measurement, 314200, Pinghu, China

D0593 LARGE-RANGE AND HIGH-RESOLUTION 3-D AND 4-D SAR IMAGING-THE CASE STUDY OF SHANGHAI

XueAo Bai[1], Hong Li[1], Xiao Wang[1*]
[1]College of Computer and Information Engineering, Nanjing Tech University, Nanjing, 211816, China

D0626 RESEARCH ON IMAGING COORDINATE SYSTEM OF TIME-DOMAIN ALGORITHM IN BI-SAR SYSTEM

Peiyun An[1], Tianyi Cai[2], Yachao Li[1*], Qin Zhong[3], Xuanqi Wang[1], Yuzhou Liu[1]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, China
[2]Beijing Institute of Remote-Sensing Equipment, Beijing, China
[3]Academy of Advanced Interdisciplinary Research, Xidian University, Xi'an, China

D0634 DEMONSTRATION OF P BAND UAV BISTATIC SAR EXPERIMENT AND IMAGING PROCESSING

Xinnong Ma[1], Linghao Li[1*], Zegang Ding[1,2]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Beijing Key Laboratory of Embedded Real-Time Information Processing Technology, Beijing, China

D0640 CLUSTERING-BASED TIME-FREQUENCY DOMAIN ADAPTIVE SAR INTERFERENCE SUPPRESSION

Xi Cen[1], Tong Gu[2], Yachao Li[1*], Sizhe Zhao[3], Dongning Fu[4], Jiarui Yang[1]
[1]The National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, China
[2]Hangzhou Institute of Technology, Xidian University, Hangzhou, China
[3]The 39th Research Institute of China Electronics Technology Group Corporation, Xi'an, China
[4]HWA-NCUT Radar RF Simulation Laboratory, Beijing, China

D0643 AN AUTOFOCUS ALGORITHM FOR MOVING TARGET WITH MICRO-MOTIONIN HIGH-RESOLUTION SAR IMAGE

Boyu Jia[1,2*], Xiao Dong[1], Yunhua Zhang[1,2]
[1]CAS Key Laboratory of Microwave Remote Sensing, National Space Science Center, Chinese Academy of Sciences, Beijing, China
[2]University of Chinese Academy of Sciences, Beijing, China

D0648 CHARACTERISTIC ANALYSIS OF HIGH-ORBIT SAR ECHO BASED ON SPHERICAL EARTH'S SURFACE

Shuting Guo[1], Heli Gao[2], Lei Liu[2], Qianyu Deng[1], Jiping Wang[1], Xinhua Mao[1*]
[1]Key Laboratory of Radar Imaging and Microwave Photonics, Ministry of Education, Nanjing University of Aeronautics andAstronautics, Nanjing, China [2]Institute of Remote Sensing Satellite, China Aerospace Science and Technology Corporation, Beijing, China

D0668 TENSOR COMPLETION-BASED ISAR IMAGING WITH SPARSE SAMPLING

Biqin Tan[1], Bangjie Zhang[2], Chengye Wu, Mengjie Jiang, Lizhong Jiang, Gang Xu[3*]
[1]The State Key Laboratory of Millimeter Waves, Southeast University, 210096, Nanjing, China
[2]Shanghai Radio Equipment Research Institute Shanghai, China

D0674 HRRP SCATTERING CENTER ESTIMATION BASED ON MODELLEDNEURAL NETWORK

Yu-ang Zhang[1,2,3], Na Zhou[1,2,3,4], Yanhua Wang[1,2,3,4,5], Liang Zhang[1,2,3*]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China
[2]The Electromagnetic Sensing Research Center of CEMEE State Key Laboratory,Beijing Institute of Technology. Beijing 100081, China
[3]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing 100081, China
[4]Beijing Institute of Technology Chongqing Innovation Center, Chongqing 401120, China
[5]Advanced Technology Research Institute, Beijing Institute of Technology, Shandong 250300, China

D0680 UNSUPERVISED POLARIZATION FEATURES SELECTION NETWORK FOR POLSAR IMAGECHANGE DETECTION BASED ON ATTENTION MECHANISM

Xueting Shan[1], Han Li[1*], Ziwen Wang[1], Zegang Ding[1,2]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Chongqing Innovation Center, Beijing Institute of Technology, Chongqing, China

D0691 MULTI-FALSE-TARGET DECEPTIVE JAMMING BASED ON FDA FOR SAR REAL TARGET CANCELLATION

Yamin Gao[1*], Jinghong Xue[1]
[1]School of Information Science and Engineering, Harbin Institute of Technology (Weihai), Weihai, China

D0693 RESEARCHES ON POLARIMETRIC DECOMPOSITION AND 3DCNN FOR ARCTIC SEA ICE CLASSIFICATION USING GAOFEN-3 FULLY POLARIMETRIC SAR DATA

Wenyi Zhang[1], Jiande Zhang[2*], Qingwei Chu[1] , Xiangyu Dai[1,3] , Hao Ding[1] , Guangzuo Li[1]
[1]Aerospace Information Research Institute, Chinese Academy of Sciences, No. 9 Dengzhuang South Road,Beijing, China
[2]QiLu Aerospace Information Research Institute, No. 44 Industry North Road, Jinan, China
[3]University of Chinese Academic of Sciences, No. 19 Yuquan Road, Beijing, China

D0708 ONLINE TRAJECTORY PLANNING OF BISTATIC SAR BASED ON REGULARISED EXTREME LEARNING MACHINE

Zhifeng Luo[1*], Zhichao Sun[1], Huarui Sun[1], Junjie Wu[1], Jianyu Yang[1]
[1]University of Electronic Science and Technology of China, Chengdu, China

D0709 ASSESSMENT OF THERMAL NOISE IMPACT ON SEA ICE CLASSIFICATION USING SENTINEL-1 IMAGES AND U-NET

Yan Huang[1], Yibin Ren[2], Yanlei Du[1], Xiaofeng Yang[1*]
[1]State Key Laboratory of Remote Sensing Science, Aerospace Information Research Institute, Chinese Academyof Sciences, 100101, Beijing, China
[2]CAS Key Laboratory of Ocean Circulation and Waves, Institute of Oceanology, Chinese Academy of Sciences,266071, Qingdao, China

D0711 A FAST ERROR PHASE CORRECTION ALGORITHM FOR IMAGING RADAR BASED ON DOMINANT SCATTERERS

Bo Pang[1,2], Dahai Dai[1,2*], Shiqi Xing[1,2], Yongzhen Li[1,2]
[1]State Key Laboratory of Complex Electromagnetic Environment Effects on Electronics and Information System, National University of Defense Technology, Deya Road No.109, Changsha, China
[2]College of Electronic Science and Technology, National University of Defense Technology, Deya Road No.109, Changsha, China

D0717 A NOVEL METHOD FOR REFOCUSING SWING SHIPS ON SAR IMAGES UNDER LONG SYNTHETIC APERTURE TIME

Jin Wang[1], Xiangguang Leng[1*], Zhongzhen Sun[1], Kefeng Ji[1]
[1]College of Electronic Science and Technology, National University of Defense Technology, Changsha 410073

D0721 EVALUATION ON EXTRACTION METHODS OF TROPICAL CYCLONE WIND DIRECTION USING SAR IMAGERY

Chao Fang[1,2], Yanlei Du[1*], Xiaofeng Yang[1]
[1]State Key Laboratory of Remote Sensing Science, Aerospace Information Research Institute, Chinese Academy of Sciences, Beijing, China
[2]University of Chinese Academy of Sciences, Beijing, China

D0727 INTELLIGENT ASSOCIATION ALGORITHM FOR MULTI-ANGLE SAR IMAGES BASED ON MULTI-FEATURE FUSION

Shichen Shan, Xiaoyu Cong*, Yubing Han, Weixing Sheng
School of Electronic and Optical Engineering, Nanjing University of Science and Technology, Nanjing, China

D0731 A HIGH-PRECISION SLIDING SPOTLIGHT ANDTOPS SAR GEO-LOCATION METHOD

Yang Juanjuan*, Lei Suli, Gao Yang, Dang Hongxing
[1]China Academy of Space Technology, Xi'an, China

D0732 WATER EXTRACTION USING SPACEBORNE KA-BAND SAR IMAGES

Jialei Wang[1], Jinglin Zhang[3], Guo Zhang[1*], Yanjun Zhang[3],
Hanwei Sun[2], MaoqiangJing[1], Hongzhan Li[1]
[1]The State Key Laboratory of Information Engineering in Surveying, Mapping and Remote Sensing(LIESMARS), Wuhan University, China
[2]Beijing Institute of Radio Measurement, Beijing, China
[3]State Key Laboratory of Water Resources Engineering and Management of Wuhan University, Wuhan, China

D0734 PARAMETERIZED AND STRUCTURED 2-D CONTROLLABLE SAR JAMMING: NEW INSIGHTS AND FRAMEWORK

Yu Wang, Guodong Jin* , Daiyin Zhu
Key Laboratory of Radar Imaging and Microwave Photonics, Ministry of Education
Nanjing University of Aeronautics and Astronautics, Nanjing, China

D0739 A SHIP IMAGING METHOD WITH ROTATIONAL MOTION BASED ON EMPIRICAL MODAL DECOMPOSITION

Nuorun Chen[1,3], Chang Cui[2,3,*], Jiacheng Yang[2,3], Xichao Dong[2,3]
[1]School of Electronic and Information Engineering, Chongqing Three Gorges University, Chongqing, China
[2]School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[3]Beijing Institute of Technology Chongqing Innovation Center, Chongqing, China

D0740 A HIGH-RESOLUTION SAR IMAGING METHOD WITH MULTIFREQUENCY PULSE DIVERSITY MODE

Zhiwei Li[1], Mengdi Zhang[1*], Shiyin Li[1], Hongyi Lu[1]
[1]School of Information and Control Engineering, China University of Mining and Technology, Jiangsu, China

D0748 SUPPRESSION OF AZIMUTH AMBIGUITY IN SAR IMAGES BASED ON MULTIPLE PRF CYCLING ANDCOMPLEX IMAGE DECONVOLUTION

Boyuan Dong[1], Zongbo He[1], Jin Cao[1], Yuan Wen[1], Bo Meng[1], Qiang Zhang[1*]
[1]Institute of Spacecraft System Engineering, China Academy of Space Technology, Aerospace City, Haidian District, Beijing, China

D0760 ELIMINATION OF IONOSPHERIC PHASE IN SAR INTERFEROMETRY WITH DEEP CONVOLUTIONAL NEURAL NETWORK

Zhilong Lin[1,2*], Gen Li[1], Yangkai Wei[1,3], Zegang Ding[1,2,3]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing, Zhejiang, China
[3]Beijing Institute of Technology Chongqing Innovation Center, Chongqing, China

D0763 EVALUATION AND REFINEMENT OF INTERFEROMETRIC BASELINE OF LT-1 SAR DURING THE IN-ORBIT TESTING PHASE

Xinyou Song[1], Lei Zhang[1*], Tao Li[2], Baocheng Lei[1]
[1]College of Surveying and Geo-Informatics, Tongji University, Shanghai, China
[2]Land Satellite Remote Sensing Application Center, Ministry of Natural Resources of P.R., Beijing, China

D0769 A DOMAIN ADAPTATION DETECTOR FOR HETEROGENOUS SAR IMAGE OBJECT DETECTION

Xin Zhang[1*], Siyuan Zhao[2]
[1]China Aeroapace System Simulation Technology (Beijing) Co, Ltd., Beijing, China
[2]Institute of Information and Navigation, Air Force Engineering University, Xi'an, China

D0775 A NOVEL IMAGE FUSION METHOD FOR JOINT ISAR-AND-OPTICAL OBSERVATION COMBING NSCT AND PADCPCNN

Ze Wang[1], Lei Liu[1*], Feng Zhou[1]
[1]Key Laboratory of Electronic Information Countermeasure and Simulation Technology of Ministry of Education, Xidian University, Xi'an, China

D0789 COHERENCE FEATURE MODELLING FOR SINGLE-BASELINE POL-INSAR

Xiaofan Sun[1*], Shuai Jiang[1], Chong Song[2]
[1]Beijing Institute of Spacecraft System Engineering, China Academy of Space Technology, Beijing 100094, China
[2]National Key Laboratory of Microwave Imaging Technology, Aerospace Information Research Institute, Chinese Academy of Sciences, Beijing 100190, China

D0790 A DEEP NEURAL NETWORK FULL-FLOW IMAGING METHOD FOR SAR MOVING TARGETS

Jie Li[1], Yaquan Han[1], Jiarui Wang[1], Jia Deng[1], Haifeng Huang[1*]
[1]School of Electronics and Communication Engineering, Sun Yat-sen University, Shenzhen, China

D0803 AN IMPROVED MOTION COMPENSATION APPROACH FOR AIRBORNE SAR WITH EXTREMELY SMALL INCIDENT ANGLE

Xintian Zhang[1], Shiyang Tang[1], Linrang Zhang[1]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an 710071, China

D0806 A BASELINE DISTRIBUTION SCHEME FOR SWARM UAVS MULTISTATIC SAR TOMOGRAPHIC IMAGING

Yulin Ao, Dong Feng, Daoxiang An
College of Electronic Science and Technology, National University of Defense Technology, Changsha, China

D0808 THE APPLICATION OF THE ALTERNATE DESCENT CONDITIONAL GRADIENT METHOD IN TOMOGRAPHIC SAR OFF-GRID IMAGING

Mingxiao Shao[1,3,4], Cikang Su[1,3,4*], Zhe Zhang[2,3,4*], Bingchen Zhang[1,3,4]
[1]the Key Laboratory of Technology in Geo-spatial Information Processing and Application System, Chinese Academy of Sciences, Beijing, China.
[2]Suzhou Key Laboratory of Microwave Imaging, Processing and Application Technology, and Suzhou Aerospace Information Research Institute, Suzhou, Jiangsu, China
[3]Aerospace Information Research Institute, Chinese Academy of Sciences, Chinese Academy of Sciences, Beijing, China.
[4]School of Electronic, Electrical and Communication Engineering, University of Chinese Academy of Sciences, Beijing, China.

D0809 ANALYSIS AND COMPENSATION OF DOPPLER SHIFT EFFECT OF GNSS-S RADAR

Tao Zhang[1,2*], Changhu Xue[1,2], Zongqiang Liu[1,2], Zhenghuan Xia[1,2], Chuang Zhang[1,2]
[1]State Key Laboratory of Space-Ground Integrated Information Technology, Beijing, China
[2]Beijing Satellite Information Engineering Institute, Beijing, China

D0816 MULTICHANNEL SPACEBORNE SAR SQUINTED SLIDING SPOTLIGHT IMAGING WITH NONLINEAR CHIRP SCALING

Sai Xiao[1,2], Pengnan Zheng[1], Xuan Wang[1], Hui Kuang[4], Yan Wang[1,2,3*]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China
[2]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing, Zhejiang 314019, China
[3]Beijing Institute of Technology Chongqing Innovation Center, Chongqing 401120, China
[4]Remote Sensing Satellite General Department of China Academy of Space Technology, Beijing 100094, China

D0819 RESEARCH ON MILLIMETER-WAVE HOLOGRAPHIC IMAGING ALGORITHM BASED ON CONVOLUTIONAL INTEGRATION

Weixian Tan[1,2], Huan Wang[1,2*], Pingping Huang[1,2], Yaolong Qi[1,2], Wei Xu[1,2], YanminChen[3], Jianxin Zhang[3]
[1]Inner Mongolia University of Technology, Hohhot 010051, China
[2]Inner Mongolia Key Laboratory of Radar Technology and Application, Hohhot 010051, China
[3]OBE Terahertz Science and Technology (Beijing) Co., Ltd, Beijing 100023, China

D0831 RETRIEVAL OF OCEAN SURFACE CURRENT FROM GF-3 SAR IMAGERY USING DOPPLER SHIFT

Jianing Shao[1,2], Yanlei Du[1*], Xiaofeng Yang[1]
[1]State Key Laboratory of Remote Sensing Science, Aerospace Information Research Institute, Chinese Academy of Sciences, Beijing, China
[2]University of Chinese Academy of Sciences, Beijing, China

D0850 AN EXTENDED FREQUENCY NONLINEAR CHIRP SCALING ALGORITHM FOR HIGH-SPEED HIGH-SQUINT SAR WITH CURVED TRAJECTORY

Kun Deng[1], Yan Huang[1*], Zhanye Chen[1], Dongning Fu[2,3], Yating Chen[1], Weidong Li[1]
[1]State Key Lab of Millimeter Waves, Southeast University, Nanjing 210096, China
[2]Hwa Create Technology Cop., Ltd., Beijing 100193, China
[3]HWA-NCUT Radar RF Simulation Laboratory, Beijing 100114, China

D0855 THEORETICAL LIMIT OF VARYING PULSE INTERVAL ABILITY TO SPACEBORNE SAR TERRAIN MATCHING CURVED IMAGING

Jinyang Huang[1], Yan Wang[1,2,3*] Ke Chen[1], Hui Kuang[4], Zegang Ding[1,2,3]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing 100081,China
[2]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing 314019, China
[3]Beijing Institute of Technology, Chongqing 401331, China
[4]Remote Sensing Satellite General Department of China Academy of Space Technology, Beijing, 100094, China

D0860 COHERENT MOTION COMPENSATION INTEGRATED WITH FAST TIMEDOMAIN ALGORITHM FOR CIRCULARSAR IMAGING

Jialong Li, Haobo Zhu, Yifei Luo, Zao Wang, Song Zhou
School of Information Engineering Nanchang University, Nanchang, China

D0862 RESOLVING RANGE AMBIGUITY IN EPC SAR BASED ON BEAMPATTERN PRECISE CONTROL

Yangyang Liu[1], Lan Lan[1*], Jingwei Xu[1], Guisheng Liao[1],Yongwei Zhang[2]
[1]National Key Lab of Radar Signal Processing, Xidian University, No.2 South Taibai Road, 710071, Xi'an,China
[2]Department of Space Microwave Remote Sensing System, Aerospace Information Research Institute, Chinese Academy of Sciences, Beijing 100190, China

D0892 SYSTEM SENSITIVITY TESTING BASED ON L-BAND DIFFERENTIAL IMTERFEROMETRIC SAR SATELLITE

Linda Feng[1], Heng Zhang[1], Qi Chen[1], Guojun Wang[2*], Yongpeng Gao[1], WentingLiu[1]
[1]China Siwei Surveying and Mapping Technology Co.ltd, Beijing, China
[2]Aerospace Information Innovation Research Institute, Chinese Academy of Sciences, 9 Dengzhuang South Road, Haidian District, Beijing, China

D0897 AN IMPROVED DEEP ACTIVE LEARNING METHOD FOR SAR SHIP DETECTION

Jiangwei Liu[1], Fei Ma[1*], Qiang Yin[1], Fan Zhang[1]
[1]College of Information Science and Technology, Beijing University of Chemical Technology, Beijing, China

D0898 UNSUPERVISED SALTLAKE WATER EXTRACTION USING DEM AND DUAL-POLARIZATION SAR

Pengfei Wang[1], Fei Ma[1*], Qiang Yin[1], Fan Zhang[1]
[1]College of Information Science and Technology, Beijing University of Chemical Technology, Beijing, China

D0899 CROSS-DOMAIN SAR DETECTION METHOD BASED ON SALIENT OBJECT ALIGNMENT

Kaiou Hu[1], Hongjie Wan[1], Fei Ma[1*]
[1]College of Information Science and Technology, Beijing University of Chemical Technology, Beijing, China

D0901 RETRIEVAL OF NEARSHORE BATHYMETRY FROM SPACEBORNE SAR DATA COMBINING NRCS AND DOPPLER SHIFT

Jiamin Lin[1], Jian Wang[1], Xiaoqing Wang[1*]
[1]School of Electronics and Communication Engineering, Sun Yat-Sen University, Shenzhen, China

D0905 SHIP DETECTION IN SAR IMAGES BASED ON DATA AUGMENTATION AND ATTENTION MECHANISM

Futing Zhang, Qiang Yin[*], Fan Zhang, Fei Ma, Yongsheng Zhou
College of Information Science and Technology, Beijing University of Chemical Technology, Beijing, China

D0909 SUBSIDENCE MONITORING WITH POLARIMETRIC PHASE AND MULTI-TEMPORAL INSAR TECHNIQUES IN KUNMING CHANGSHUI INTERNATIONAL AIRPORT

Mingchun Wen[1], Mengshi Yang[2], Zhifang Zhao[2*]
[1]Institute of International Rivers and Eco-Security, Yunnan University, Kunming, China
[2]School of Earth Sciences, Yunnan University, Kunming, China

D0926 FULL APERTURE PHASE ERROR ESTIMATION FOR SPACEBORNE SPOTLIGHT SAR

Wenbin Gao[1*], Li Li[1], Peihe Liu[1]
[1]Department of Electronic and Communication Engineering, Beijing Electronic Science and Technology Institute, Beijing, China

D0927 CALIBRATION OF DEM GENERATION BY USING LUTAN-1 BISTATIC SAR DATA

Peizhen Li[1,2], Zhiwei Li[1], Tao Li[2*], Xiaoqing Zhou[2], Xiang Zhang[2]
[1]Central South University, 410083, ChangSha, China
[2]Land Satellite Remote Sensing Application Center, MNR, 100048, Beijing, China

D0928 ESTIMATION AND CALIBRATION OF UAV TRAJECTORY DEVIATION FOR THROUGH-WALL RADAR DETECTION

Luying Chen[1,2], Xiaolu Zeng[*1,2], Xiaopeng Yang[1,2], Wanyu Zhang[1,2], Shichao Zhong[1,2]
[1]Beijing Institute of Technology, Beijing,100081, China
[2]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing, 314001, China

D0929 SEPARABILITY ANALYSIS OF SHIP TARGETS BASED ON COMPACT POLARIMETRIC SAR FEATURES CONSTRUCTION

Zhaoxiang Ma, Qiang Yin[*], Fengyuan Zhang, Fei Ma, Fan Zhang
College of Information Science and Technology, Beijing University of Chemical Technology, Beijing, China

D0936 RFISM-NET: AN INTERFERENCE SEGMENTATION AND MITIGATION NETWORK FOR SAR

Xiaoyu Xu[1], Weiwei Fan[1], Feng Zhou[1*],Yunan Sun[2]
[1]Key Laboratory of Electronic Information Countermeasure and Simulation Technology of Ministry of Education, Xidian University, Taibai South Road No.2, Xi'an, China
[2]Nanjing Military Repretitive Bureau, Nanjing, China

D0949 FEW-SHOT CLASS-INCREMENTAL SAR TARGET CLASSIFICATION BASED ON CLASS-AWARE BILATERAL DISTILLATION

Peng Li[1*], Xiaowei Hu[1], Cunqian Feng[1], Weike Feng[1]
[1]Air force Engineering University, Xi'an, China

D0974 DEVELOPMENT AND APPLICATION ANALYSIS OF LOW-COST DECOY TARGET AIRCRAFT

Xu Jun
The 38th Research Institute of China Electronics Technology Group Corporation, HeFei, China

D0988 INNOVATIVE POL-INSAR MODEL SYSTEM BASED ON GAMMA DISTRIBUTION: THEORETICAL UNIFICATION OF SEVERAL MODELS

Xiaofan Sun[1*], Shuai Jiang[1], Chong Song[2]
[1]Beijing Institute of Spacecraft System Engineering, China Academy of Space Technology, Beijing 100094, China
[2]National Key Laboratory of Microwave Imaging Technology, Aerospace Information Research Institute, Chinese Academy of Sciences, Beijing 100190, China

D0994 A METHOD FOR VELOCITY ESTIMATION OF MOVING TARGETS BASED ON MULTI-ANGLE SAR IMAGE SEQUENCES

Zhibin Wang[1*], Qingjun Zhang[1], Zheng Lv[1], Jiuli Liu[1], Yashi Zhou[1], Taoli Yang[2]
[1]Institute of Remote Sensing Satellite, China Academy of Space Technology, Beijing, China
[2]University of Electronic Science and Technology of China, Chengdu, China

D0998 A CONVOLUTIONAL AND VARIANT VISUAL TRANSFORMER FUSION NETWORK FOR SMALL SHIP DETECTION IN SAR IMAGES

Shengye Xu[1], Xinghai Hou[2], Li Lin[3], Fukun Bi[1*]
[1]North China University of Technology, School of Information, Beijing, China
[2]Beijing North Zhitu Information Technology Co., Ltd, Beijing, China,
[3]DFH Satellite Co., Ltd, Beijing, China

D216 ANALYSIS OF POLARIMETRIC DISTORTIONS OFRADAR WAVES IN MAGNETIZED PLASMA SHEATH

Yanpeng Hu[1*], Wei Guo[1], Fangfang Shen[1], Xiaolu Tian[2], Peng Xiao[3]
[1]School of Aerospace Science and Technology, Xidian University, Xi'an, China.
[2]Space Star Technology Co., Ltd., Beijing, China
[3]College of Information Engineering, Capital Normal University, Beijing, China

D269 AN ISAR IMAGING METHOD FOR MANEUVERING TARGET BASED ON FAST ITERATIVE SHRINKAGE THRESHOLDING ALGORITHM-PARTICLE SWARM OPTIMIZATION

Fengkai Liu[1], Darong Huang[1*], Xinrong Guo[2], Cunqian Feng[1]
[1]Air Force Engineering University, Xi'an 710051, China
[2]Armed Police Engineering University, Xi'an 710051, China

D275 ANALYSIS OF TIME-VARIANT IPP AND ISAR IMAGING FOR NON-COOPERATIVETARGETS WITH HIGHLY MANEUVERING MOTION

Zhijun Yang[1*], Weiming Tian[2], Yunkai Deng[3*], Xin Xie[4]
[1]Chongqing Innovation Center, Beijing Institute of Technology, Chongqing, China
[2]School of Information of Electronics, Beijing Institute of Technology, Beijing, China
[3]School of Information of Electronics, Beijing Institute of Technology, Beijing, China
[4]School of Information of Electronics, Beijing Institute of Technology, Beijing, China

D312 ISAR IMAGING OF IFDS ECHO BASED ON GPU PARALLEL PROCESSING

Junfeng Lei[1], Tao Liu[1], Biao Tian[1*]
[1]School of Electronics and Communication Engineering, Shenzhen Campus of Sun Yat-sen University, Shenzhen, China

D322 SPACEBORNE SAR IMAGE SIMULATION BASED ON MULTI-POLARIZED SAR AIRBORNE DATA

Xi Chen[1*], Renyuan Chen[1]
[1]Earth Observation Research and Development Center No.38 Research Institute of China Electronic Technology Group Corporation, No.199 Xiangzhang Avenue, High tech Development Zone, Hefei, Anhui, China

D348 DEEP UNFOLDING FOR SPARSE APERTURE ISAR IMAGING VIA COMPRESSED SENSING: CIST+

Hongzhi Li[1], Jialiang Xu[2], Haoxuan Song[3], Yong Wang[4*]
[1]Harbin Institute of Technology, Harbin, China
[2]Harbin Institute of Technology, No.92, West Dazhi Street, Harbin, China
[3]Harbin Institute of Technology, No.92, West Dazhi Street,, Harbin, China
[4]Harbin Institute of Technology, No.92, West Dazhi Street,, Harbin, China

D378 **AN IMPROVED RANGE MIGRATION ALGORITHM BASED ON AZIMUTH TIME RESAMPLING FOR AUTOMOTIVE SAR WITH CURVED TRAJECTORY**

Haolan Li[1], Ping Guo[1*], Rongshu Wang[1], Mengqi Zhang[1], Zhe Pan[1]
[1]College of Communication and Information Engineering, Xi'an University of Science and Technology, Xi'anShaanxi China

D432 **A SCATTERING MECHANISM ANALYSIS MODEL FOR VESSELS IN POLARIMETRIC SAR IMAGES**

Yifan Chen[1], Lamei Zhang[1*], Bin Zou[1]
[1]School of Electronics and Information Engineering, Harbin Institute of Technology, Harbin, China

D434 **RESEARCH ON BROADBAND UNDERSAMPLING ISAR IMAGING METHOD FOR VEHICLE TARGETS**

Meng Huang[1,2], Shiyang Tang[2*], Linrang Zhang[2],Rou Xin[1],Hailong Kang[1]
[1]Hangzhou Institute of Technology, Xidian University, Hangzhou, China
[2]National Key Lab of Radar Signal Processing, Xidian University, Xi'an, China

D450 **SAR ABSOLUTE RADIOMETRIC CALIBRATION METHOD BASED ON OFFSHORE WIND FARM**

Qian Ying, Yongsheng Zhou*, Qiang Yin, Fei Ma, Fan Zhang
College of Information Science and Technology, Beijing University of Chemical Technology, Beijing, China

D468 **A ROBUST METHOD FOR ESTIMATION OF VELOCITY IN CHIRP-SUBPULSE STEPPED FREQUENCY RADAR**

Jinfeng Wang[1,2], Rengli Liu[1,2], Xuelian Zhong[1,2], Hong Hu[1,2]
[1]The 38th Research Institute of China Electronics Technology Group Corporation, Heifei, China
[2]Key Laboratory of Aperture Array and Space Application, Heifei, China

D474 **SAR IMAGE SIMULATION METHOD FOR COMPLEX TARGETS BASED ON SHADOW GEOMETRY MODEL**

Xinchang Hu[1], Gang Li[2], Jianghong Han[3*]
[1]qiyuanlab, Beijing, China
[2]Tsinghua University, Beijing, China
[3]qiyuanlab, Beijing, China

D517 **RESEARCH ON ISAR IMAGING METHOD OF LONG-DISTANCE HIGH-SPEED SPACE TARGETS**

Ruyin Xue[1*], Jichuan Li[1], Danru Yu[1], Chen Zhao[1]
[1]Bejing Institute of Remote Sensing Equipment, Bejing, China

D574 **SPARSITY-BASED NONPARAMETRIC PHASE ERROR CORRECTION FOR THZ SAR IMAGING**

Yi Ding[1], Junpeng Shi[2], Shuyun Shi[3*]
[1]College of Electronic Engineering, National University of Defense Technology, Hefei 230037,
[2]College of Electronic Engineering, National University of Defense Technology, Hefei 230037,
[3]College of Electronic Engineering, National University of Defense Technology, Hefei 230037, China

D654 **DEEP UNFOLDING NETWORK FOR SPARSE SAR IMAGING BASED ON COMPOUND REGULARIZATION**

Guoru Zhou[1,2,3*], Zhongqiu Xu[1], Yizhe Fan[1,2,3], Zhe Zhang[1,3],
Bingchen Zhang[1,2,3], Yirong Wu[1,3]
[1]Aerospace Information Research Institute, Chinese Academy of Sciences, Beijing, China
[2]Key Laboratory of Technology in Geo-spatial Information Processing and Application System, Chinese Academy of Sciences, Beijing, China
[4]School of Electronic, Electrical and Communication Engineering, University of Chinese Academy of Sciences, Beijing, China

D667 **MANEUVERING TARGET IMAGING AND MOTION PARAMETER ESTIMATION BASED ON IMPROVED MAXIMUM LIKELIHOOD ESTIMATION**

Mengdi Zhang[1], Hongyi Lu[1*], Shiyin Li[1], Zhiwei Li[1]
[1]School of Information and Control Engineering, China University of Mining and Technology, Xuzhou, China

D699 **HIGH-SUCCESS-RATE ISAR IMAGING OF MANEUVERING TARGETS WITH A ROBUST OPTIMAL IMAGING TIME INTERVAL SELECTION ALGORITHM**

Jiabo Fan[1], Shuai Shao[1*], Hongwei Liu[1]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, 710071, China

D835 **AN AUTOMATIC AND ACCURATE SEARCH METHOD OF SPACEBORNE SAR IMAGES BY GROUND CONTROL POINTS**

Zhang Bin[*], Wang Zhirui, Kang Changhui, Wang Liuliu, Li Shuang
Beijing Institute of Radio Measurement, Beijing, China

D963 **AN ADAPTIVE SCHEDULING ALGORITHM FOR MULTI-TARGET ISAR IMAGING RADAR BASED ON GREEDY ALGORITHM**

Huan Yao[1], Hou Lou[1*], Dan Wang[2],Yijun Chen[1,3]
[1]School of Information Engineering, Engineering University of the People's Armed Police, Xi'an, China
[2]Institute of Information and Navigation, Air Force Engineering University, Xi'an, China
[3]The National Lab of Radar Signal Processing, Xidian University, Xi'an, China

Poster Session 3: Emerging Technology

Time: 15: 30 - 16: 30, December 4, 2023
Place: Liangjiang Grand Ballroom 1+2
Chair: Dr. Han Li, Beijing Institute of Technology, China
Prof. Haihong Tao, Xidian University, China

C0008 SYSTEMATIC ERROR MEASUREMENTS IN OBJECT HEIGHT ESTIMATION FOR AUTOMOTIVE RADARS

Sergei Shishanov[1]*, Dmitry Zakhryapin, Anna Dzvonkovskaya[1], Boya Qin[1]
[1]Huawei Technologies Co. Ltd., Russia

C0079 REAL-TIME RANGE AMBIGUITIY RESOLVINGMETHOD FOR HIGH PRF SAR

Shilin Niu[1,2*], Guodong Jin[1,2], Xifeng Zhang[1,2], Hanqing Zhang[1,2],
Xingbo Pan[1,2],Yuan Cheng[3], and Daiyin Zhu[1,2]
[1]Nanjing University of Aeronautics and Astronautics, Nanjing, China
[2]Key Laboratory of Radar Imaging and Microwave Photonics, Ministry of Education, Nanjing, China
[3]AVIC Leihua Electronic Technology Research Institute, Aviation Industry Corporation of China, Wuxi, China

C0088 MGLI: AN EFFICIENT INDEX FOR RDW DATAIN CLOUD ENVIRONMENT

Zhenyu Sheng[1*], Yu Chen[1], Cheng Liu[1], Yao Chen[2], Yu Zhu[1]
[1]No. 724 Research Institute of CSSC, Nanjing, Jiangsu, China
[2]Jiangsu Open University, Nanjing, Jiangsu, China

C0095 A NOVEL UNSCENTED PARTICLE FILTER FOR JOINT TRACKING ANDCLASSIFICATION OF MANEUVERING TARGET

Xirui Xue[1*], Shucai Huang[2], Daozhi Wei[2]
[1]Graduate College, Air Force Engineering University, Xi'an, China
[2]Air and Missile Defense College, Air Force Engineering University, Xi'an, China

C0200 A SPARSE-PRIOR-BASED DATASET EXPANSION METHODFOR MICROWAVE RADAR IMAGING

Kaicheng Cao[1], Yuzhou Ran[1], Zhenwei Hou[1], Bo Fan[1*]
[1]National Innovation Institute of Defense Technology, Academy of Military Science, Beijing, China

C0241 LANDSLIDE DISPLACEMENT PREDICTION BASED ONTIMESERIESAND GRU-ATTENTION NEURAL NETWORK

Chengwei Huang[1], Xin Xie[2], Yunkai Deng[2,3*], Mengrui Liu[1]
[1]School of Electronic and Information Engineering, Chongqing Three Gorges University, Chongqing, China
[2]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[3]Chongqing Innovation Centre, Beijing Institute of Technology, Chongqing, China

C0278 EFFICIENT IMPLEMENTATION OF BP IMAGINGALGORITHM ON FPGA

Mengrui Liu[1], Xin Xie[2*], Yunkai Deng[2,3], Wenliang Nie[1]
[1]School of Electronic and Information Engineering, Chongqing Three Gorges University, Chongqing, China
[2]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[3]Beijing Institute of Technology Chongqing Innovation Center, Chongqing, China

C0303 MULTI-SENSOR MULTI-TARGET TRACKING METHOD WITHLIMITED FIELD OF VIEW

Kuiwu Wang[1,2*], Qin Zhang[1] and Xiaolong Hu[1]
[1]School of Air Defense and Missile Defense, Air Force Engineering University, Xi'an 710051, China;
[2]Graduate School，Air Force Engineering University, Xi'an 710051, China

C0306 A SPATIAL REGISTRATION ALGORITHM FORNETWORKED RADAR BASED ON GRIDS MERGING

Fengdeng Gu[1], Chang Gao[1,2*], Qingfu Zhang[2], Junkun Yan[1], Tianyi Jia[1], Hongwei Liu[1]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, 710071, China
[2]City University of Hong Kong, Kowloon, Hong Kong

C0330 JOINT TRACKING AND SHAPE ESTIMATIONMETHOD FOR TARGETS WITH MICRO-MOTIONS

Songyao Dou[1], Ying Chen[1], Yaobing Lu[1], Dewu Wang[1]
[1]Beijing Institute of Radio Measurement, Beijing, China

C0334 AN IMPROVED MEASUREMENT PIXEL SELECTION METHODOF GB-MIMO RADAR IMAGE APPLIED FORBRIDGE VIBRATION MEASUREMENT

Jiake Gao[1], Xiaoxiao Li[2]，Hanpu Zhou[1], Wenyu Li[1], Yunkai Deng[1,3*], WeimingTian[1,4]
[1]Radar Research Lab, School of Information and Electronics, Bejing Institute of Technology, Bejing, People's Republic of China
[2]Beijing Building Research Institute Co., Ltd.of CSCEC, Beijing China, 100076
[3]Chongqing Innovation Center，Beijing Institute of Technology, China
[4]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan 250300, China

C0335 A FAST IMPLEMENTATION ALGORITHM OF GRFT FOR COHERENT INTEGRATION OF HIGH-SPEED MANEUVERING TARGETS

Peiyi Fan[1*], Yifan Guo[1], Kun Qin[1], Haojuan Yuan[1], Xinze Zhang[1]
[1]Shanghai Aerospace Electronic Technology Institute, Shanghai, China

.

C0358 REALIZATION OF DUAL-CHANNEL GMTI REAL-TIME PROCESSING TECHNOLOGY BASED ON FPGA

Shuai Jiang[1], Yue Cao[1], YunHua Luo[1], ShuChen Guo[1], Xuan Zhou[1], XiaoBei Wang[*],ShuHao Zhang[1,2]
[1]Aerospace Information Research Institute, Chinese Academy of Sciences, Beijing 100094, China
[2]School of Electronic, Electrical and Communication Engineering, University of Chinese Academy of Sciences, Beijing 101408,China

C0409 AIR TARGET THREAT ASSESSMENTUSINGLATENT FEATURES ENHANCEDBAYESIANNETWORKS

Yaxian Ji[1*], Dekui Xing[1], Jiewen Zhao[1], Hongwei Gao[1], Guangchuang Zhang[1]
[1]Beijing Institute of Radio Measurement, Beijing, China

C0439 SURFACELET-IHS TRANSFORM-BASED FUSION OFSAR AND OPTICAL VIDEO

Zekai Yun[1],Xiaokun Sun[2*], Wenhang Li[3], Rui Feng[4], Canbin Hu[5], Deliang Xiang[6]
[123456]College of Information Science and Technology, Beijing University of Chemical Technology, Beijing, China

C0445 MULTI-SENSOR TRACK ASSOCIATION ANDINTERRUPTED TRACK ASSOCIATION BASED ONDEEP LEARNING ALGORITHMS

Songtao Hu[1], Liang Chen[2], Jun Yang[3*]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[3]China Academic of Electronics and Information Technology, Beijing, China

C0481 PHASE CONGRUENCY BASED COMMON FEATURESALIENCY ENHANCEMENT FOR OPTICAL ANDSAR IMAGE MATCHING

Yuting Yang[1], Lingjun Zhao[1*], Kefeng Ji[1]
[1]College of Electronic Science and Technology, National University of Defense Technology, Changsha 410073, China

C0493 DESIGN AND IMPLEMENTATION OF ACONFIGURABLE PARALLEL FFT PROCESSOR INONBOARD SAR IMAGING SYSTEM BASED ON FPGA

Ming Xu[1], Jiawei Zhang[2], Yongrui Li[1*], Yifei Yin[1], Ao Zhang[1], Heng Dong[1,3] ,Liang Chen[1,3] and Hao Shi[1]
[1]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing Institute of Technology, Beijing 100081, China
[2]Shanghai Institute of Satellite Engineering, Shanghai 201109, China
[3]Sichuan TianFu New Area Beijing Institute of Technology Innovation Equipment Research Institute, Chengdu 610299, China

C0514 LENGTH ESTIMATION OF SHIPS THROUGH DUAL-RADAR COLLABORATIVE OBSERVATION

Hu Yihang[1], Ai Xiaofeng[1*], Wang Manxi[1], Zheng Yuqing[1]
[1]State Key Laboratory of Complex Electromagnetic Environment Effects on Electronics and Information System, National University of Defense Technology， Changsha 410073, China

C0527 MULTI-CARRIER LFM SIGNAL FUSION FOR RADAR INTERFERENCESUPPRESSION

Jinhu Li, Jiayuan Kong, Yuewen Zhou, Fangzheng Zhang*, Shilong Pan, Yihan Wang
College of Electronic and Information Engineering
Nanjing University of Aeronautics and Astronautics, Nanjing, China

C0536 EXPLORING THE POTENTIAL OF ULTRA-LOW LATENCY SPIKING NEURAL NETWORK IN REMOTE SENSING IMAGE CLASSIFICATION

Jiahao Li[1], Ming Xu[1], He Chen[1,*], Can Li[1]
[1]Beijing Key Laboratory of Embedded Real-Time Information Processing Technology, Beijing Institute of Technology, Beijing, China

C0552 MINIATURIZED PHASED ARRAY SIGNAL PROCESSING HARDWARE DESIGN BASED ON ADAPTIVE BEAMFORMING TECHNOLOGY

Haoran Wu[1], Zihan Geng[2], Ziao Wang[2], Xinghua Wang[2,4], Xiaoran Li[2,4], Quanwen Qi[3], Fang Han[3], Zicheng Liu[5]
[1]The Third Institute of China Electronic Technology Group Corporation, Beijing 100015, China.
[2]School of Integrated Circuits and Electronics, Beijing Institute of Technology, Beijing 100081, China.
[3]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing, Zhejiang 314000, China.
[4]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, Shandong 250101, China.
[5]BIT Chongqing Institute of Microelectronics and Microsystems, Chongqing 401332, China.

C0584 ACTIVE AND PASSIVE COOPERATIVE TRACKING METHOD BASED ON WEIGHTED LEAST SQUARES

Chen Shuailin[1*], Chen Jinyu[1], Miao Haochun[1], Dang yuanjie[1], Li wei[1]
[1]Xi'an Modern Control Technology Research Institute, Xi'an 710000, China

C0635 RESEARCH ON DOA ESTIMATION AND SIGNALSORTING ALGORITHMS FOR MULTI-BASELINEPOLARIZATION INTERFEROMETER

Mingchao Qu[1,2*], Letian Han[1,2], Weijian Si[1,2]
[1]College of Information and Communication, Harbin Engineering University, Harbin, China
[2]Key Laboratory of Advanced Marine Communication and Information Technology, Ministry of Industry and Information Technology, Harbin Engineering University, Harbin, China

C0695 DESIGN OF A NON-UNIFORM INTERPOLATORFOR REAL-TIME PROCESSING OF FLAT EARTHREMOVAL OF INTERFEROMETRIC IMAGINGRADAR ALTIMETER

Xiao Jin[1,2*], Xiaojin Shi[1,2], Yunhua Zhang[1,2]
[1]CAS Key Laboratory of Microwave Remote Sensing, National Space Science Center, Chinese Academy of Sciences, Beijing, China
[2]University of Chinese Academy of Sciences, Beijing, China

C0814 MULTI-CHANNEL HBM PARALLELSTORAGE CONTROLLER FORSPACEBORNESAR IMAGING SYSTEM

Ao Zhang[1,2], Jiaping Zhou[3], Yongrui Li[1,2], Zhihan Zhang[1,2], Ming Xu[1,2*], Zhu Yang[1,3,4], Yizhuang Xie[1,2]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China
[2]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing 100081, China
[3]School of Electronics and Electrical Engineering Ningxia University, Yinchuan 750021, China
[4]Beijing Racobit Electronic Information Technology Co.Ltd, Beijing 100081, China

C0826 CPU+GPU ARCHITECTURE RADARREAL-TIMESIGNAL PROCESSING METHODBASEDONSIGNALDESCRIPTION TECHNOLOGY

Min Zhao[1], Qianshun Zou[1], Bing Sun[1*], Youbin Song[2], Jing Ma[2]
[1]Beihang University, Beijing, China
[2]Beijing Simulation Center, Beijing, China

C0828 RESEARCH ON A METHOD OF REALIZING HIGH PERFORMANCE ULTRA-LONG PULSE COMPRESSION PROCESSOR BASED ON FPGA

HongHao Wu[1,2,3], TingTing Qiao[1,2], He Chen[1,2], YiZhuang Xie[1,2*], YongRui Li[1,2]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, People's Republic of China
[2]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing Institute of Technology, Beijing 100081, People's Republic of China
[3]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing, Zhejiang 314019, China

C0853 SPACEBORNE SAR IMAGING SYSTEM WITH HIGHPERFORMANCE POLYNOMIAL ENGINES

Zhihan Zhang[1,2], Yinsheng Xu[3], Yongrui Li[1,2], Ao Zhang[1,2], Yizhuang Xie[1,2*]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China
[2]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing 100081, China
[3]Shanghai Institute of Satellite Engineering, Shanghai 201109, China

C0934 RESEARCH ON REMOTE SENSING SATELLITE IMAGE COMPRESSION AND EVALUATION METHODS BASED ON GAN

Kan Cheng[1], Yafang Zou[1*], Zheng Lu[1], Hao Jin[1], Yuting Zhao[1], Kunpeng Xing[1]
[1]China Academy of Space Technology, Beijing, China

C0951 JOINT CLASSIFICATION OF HYPERSPECTRAL ANDSAR DATA USING ASYMMETRIC RESIDUAL CROSSTRANSFORMER

Yaxiu Sun[1], Minhui Wang[1], Rui Sun[1], Lihong Hao[2], Jianhong Xiang[1*]
[1]National Key Laboratory of Communication Anti-Jamming Technology, College of Information and Communication Engineering, Harbin Engineering University, Harbin, China
[2]Agile and Intelligent Computing Key Laboratory, Chengdu, China

C0991 A FUSION ALGORITHM WITH SYNCHRONOUS ANDASYNCHRONOUSMEASUREMENTS FOR ACTIVEAND PASSIVE RADAR SYSTEMS

Dewu Wang[1,2],Songyao Dou[2*],Zhengwei Liu[2],Quanhua Liu[1]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Beijing Institute of Radio Measurement, Beijing, China

F0030 A NOVEL HYBRID SPARSE SAR IMAGINGALGORITHM BASED ONL1/2-NORM

Zhiqi Gao[1,2], Zhuang Yang[1,2], Pingping Huang[1,2*], Wei Xu[1,2], Weixian Tan[1,2]
[1]College of Information Engineering, Inner Mongolia University of Technology, Hohhot 010080, China
[2]Inner Mongolia Key Laboratory of Radar Technology and Application, Hohhot 010051, China

F0061 A CNN-BASED TARGET COMPONENT EXTRACTIONMETHODUNDER JAMMING BACKGROUND

Yu Zhang[1], Bo Jiu[1*], Youai Wu[1], Wenqi Jiang[1], Youlin Fan[1], Hongwei Liu[1]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, China

F0240 TASK SCHEDULING OF RADAR CONSTELLATIONFOR CONTINUOUS AREA MONITORING

Guanren Chen[1,2,3], Wei Liu[1,2,3], Feng Qiu[1,2,3], Weiqi Zhou[1,2,3], Yanjun Hao[1,2,3], Linghao Xia[1,2,3]and Yuhao Yang[1,2,3]
[1]Nanjing Research Institute of Electronics Technology, Nanjing 210039, China
[2]Key Laboratory of IntelliSense Technology, CETC, Nanjing 210039, China
[3]Jiangsu Provincial Key Laboratory of Detection and Perception Technology, Nanjing 210039, China

F0299 IMPROVED ORIENTED RCNN SARTARGETDETECTIONBASED ONTHE SAR TARGETFEATURES

Wan Huiyao[1], Jie Chen[1,2*], Cao Yice[1], Huang Zhixiang[1], WenTian Du[1], WuBocai[2]
[1]Key Laboratory of Intelligent Computing and Signal Processing of Ministry of Education, School of Electronics and Information Engineering of Anhui University, Hefei, China
[2]38th Research Institute of China Electronics Technology Group Corporation, Hefei, China

F0304 SARGAP: A FULL-LINK GENERALDECOUPLINGAUTOMATIC PRUNING ALGORITHMFORDEEPLEARNING-BASED SAR TARGETDETECTORS

Yu Jingqian[1], Chen Jie[1,2], Wan Huiyao[1], Zhou Zheng[1], Cao Yice[1],
Huang Zhixiang[1], LiYingsong[1], Wu Bocai[2], Yao Baidong[2]
[1]Key Laboratory of Intelligent Computing and Signal Processing of Ministry of Education, School of Electronics and Information Engineering of Anhui University, Hefei, China
[2]38th Research Institute of China Electronics Technology Group Corporation, Hefei, China

F0359 RESPIRATION ESTIMATION FOR INDOOR HUMAN VIA COMMODITYWIFI BASED ON TIME-FREQUENCY ANALYSIS

Kun Hu, Jiawei Huo, Zhongyu Li, Yuhua Zhang
University of Electronic Science and Technology of China, Chengdu, P.R.China

F0388 DESIGN AND VERIFICATION OF RADAR SYSTEMBA SEDONMBSE

Ran Zhang[1],Xuemei Yan[1*],Zhong Yu[1],Zhaoqiang Sun[1],Hao Wang[1]
[1]Beijing Institute of Radio Measurement, Beijing, China

F0425 A COMPUTATIONALLY EFFICIENT SPARSESARIMAGINGNETWORK BASED ONADMM

Mengyang Zhan[1], Yinwei Li[1*], Qibin Zheng[1]
[1]Terahertz Technology Innovation Research Institute, University of Shanghai for Science and Technology, Shanghai, China

F0470 EXTRACTION OF GLACIER SURFACE FLOWVELOCITY FIELD BASED ON MULTI-SOURCE SARIMAGERY IN THE IGONG TSANGPO BASIN

Lanyu LI[1*], Haowei Shen[1], Beile Niu[1]
[1]Nanjing Research Institute of Electronic Technology, Nanjing, China

F0485 AIRPLANE SYMMETRY-BASED CONVOLUTIONAL NEURAL NETWORKFORAIRPLANE DETECTION IN REMOTE SENSING IMAGE

Bei Cheng[1*], Bo Wang[1], Zao liu[1], Qingwang Wang[1], Tao Shen[1], Yebo Gu[1]
[1]Kunming University of Science and Technology, No.727, Jingming South Road, Chenggong District, KunmingCity, Yunnan, China

F0520 OPTIMIZED WAVEFORM DESIGN FOR DISTANCE SIDELODESUPPRESSION IN NFMCW INTEGRATED RADAR AND JAMMINGSYSTEMS

Zhuochen Chen[1*], Shengqi Zhu[2*], Yongjun Liu[3], Ximin Li[4]
[1]National Laboratory of Radar Signal Processing, Xi'an, China
[2]National Laboratory of Radar Signal Processing, Xi'an, China
[3]National Laboratory of Radar Signal Processing, Xi'an, China
[4]National Laboratory of Radar Signal Processing, Xi'an, China

F0532 RADAR JAMMING STATE PREDICTION METHODBASED ON CNN LSTM

Chen Li[1], Jiaxiang Zhang[2], Zhennan Liang[2], Xinliang Chen[1,2,3*]
[1]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing, China
[2]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[3]Key Laboratory of Electronic and Information Technology in Satellite Navigation (Beijing Institute of Technologv), Ministry of Education, Beijing, China

F0550 EFFECTIVE VELOCITY ESTIMATION METHOD FOR PASSIVE LOCATIONBASED ON VIRTUAL APERTURE

Tong Zhang[1], Xin Zhang[1], Xiangyuan Wang[1], Qiang Yang[1*]
[1]Harbin Institute of Technology, Harbin, China

F0557 AN ALGORITHM FOR SIDELOBE SUPPRESSION OF RADAR ANDCOMMUNICATION INTEGRATED LFM-MSK SIGNAL

Xingguo Li[1], Yingying Wu[2], Rui Guo[3*], Shiyou Xu[4]
School of Electronics and Communication Engineering, Sun Yat-sen University, Shenzhen, China

F0652 DEVELOPMENT DEMANDS FOR REMOTE SENSING INFORMATIONPROCESSING TECHNOLOGY: INSPIRED BY THE USPWSA

Lu Zheng[1*], Lu Xiaotian[1], Cai Zitao[1], Zhao Huijie[1], Liu Guoqing[1], Cheng Kan[1], Liang Xiaoyang[1]
[1]China Academy of Space Technology, 104 Youyi Road, Beijing, China

F0653 ANALYSIS ON FUTURE DEVELOPMENT DEMANDS OF REMOTE SENSING INFORMATION PROCESSING TECHNIQUES BASED ON THE DEVELOPMENT OF US MISSILE DEFENSE SYSTEM

Lu Zheng[1*], Cai Zitao[1], Zhao Huijie[1], Liu Guoqing[1], Cheng Kan[1], Liang Xiaoyang[1]
[1]China Academy of Space Technology, 104 Youyi Road, Beijing,

F0684 K-MEANS CLUSTERING BASED SPARSE CROSSENTROPY MINIMIZATION ALGORITHM FOR DOAESTIMATION

Qiang Guo[1,2], Hanyu Jiang[1,2], Jianhong Xiang[1,2*], Yu Zhong[3]
[1]College of Information and Communication, Harbin Engineering University, Harbin, China
[2]Key Laboratory of Advanced Ship Communication and Information Technology, Harbin Engineering University, Harbin, China
[3]Agile and Intelligent Computing Key Laboratory, Chengdu, China

F0703 DCAMM-DYNAMIC CLUSTERING AND NETWORKINGALGORITHMFOR MOBILE AGENTS IN MANUFACTURING SCENE

Jiayi Hu[1], Shibo He[1], Zhiguo Shi[2], Yong Wang[2*]
[1]College of Control Science and Engineering, Zhejiang University, Hangzhou, China
[2]College of Information Science and Electronic Engineering, Zhejiang University, Hangzhou, China

F0741 DUAL-POLARIMETRIC SENTINEL-1 SAR TIME SERIES DATADESPECKLING USING RABASAR WITH LOW-RANK IMAGE

Yalin Liang[1], Xiangli Yang[1], Zhiguo Wang[2], Pingping Huang[2],
Guan Cai[3], Youping Xie[3],Jianxi Yang[1*]
[1]School of Information Science and Engineering, Chongqing Jiaotong University, Chongqing, China
[2]College of Information Engineering, Inner Mongolia University of Technology, Hohhot, China
[3]The Second Surveying and Mapping Institute of Hunan Province, Changsha, China

F0794 3D SPARSE IMAGING AND POINT CLOUD ENHANCEMENT FORLOW SAMPLING RATES

Yifei Hu[1], Mou Wang[1], Lin Nie[1], Shunjun Wei[1*]
[1]School of Information and Communication Engineering, University of Electronic Science and Technology of China, Chengdu 611731, China

F0811 A LIDAR LOCALIZATION METHOD BASED ONSPATIO TEMPORAL FUSION AND QUALITYFILTERING

Jieqiong Wu[1,2], Jian Li[1,2*], Zihuan Hao[1,2], Liang Chen[1,3], Si Sun[1,3]
[1]Radar Research Lab, School of Information and Electronic, Beijing Institute of Technology, Beijing, China
[2]Key Laboratory of Electronic and Information Technology in Satellite Navigation (Beijing Institute of Technology), Ministry of Education, Beijing, China
[3]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, China

F0830 COMPARATIVE ANALYSIS OF SAR SHIPDETECTION METHODSBASED ON DEEPLEARNING

Tong Wei[1], Taoyang Wang[1*], Tiancheng Dong[2], Maoqiang Jing[2],
Shili Chen[1], ConganXu[3], Yu Liu[3], Junfeng Wu[3], Long Gao[3]
[1]School of Remote Sensing and Information Engineering, Wuhan University, Wuhan，China
[2]State Key Laboratory of Information Engineering in Surveying, Mapping and Remote Sensing, Wuhan University, Wuhan, China
[3]Information Fusion Institute, Naval Aviation University, Yantai, China

F0869 COMPRESSIVE SPECTRAL IMAGING AND ITS APPLICATION

Huijie Zhao[1], Hao Zhang[2*], Zheng Lu[1], Hongchen Tang[1], Siheng Wang[1]
[1]Institute of Remote Sensing Satellite, China Academy of Space Technology,10094, Beijing, China
[2]State Key Laboratory of Pulsed Power Laser Technology, National University of Defense Technology, 230037, Hefei, China

F0883 A MULTI-CORE IMAGE ACQUISITION AND STORAGE SYSTEM WITHLOW-LIGHT ENHANCEMENT

Shidong Lv[1],Zhixian Hou[1],Chaoyue Wang[2],Fang Han[2],Quanwen Qi[2],
Zicheng Liu[4],XinghuaWang[1,3],Xiaoran Li[1,3]
[1]School of Integrated Circuits and Electronics, Beijing Institute of Technology, Beijing 100081, China.
[2]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing, Zhejiang 314000, China.
[3]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, Shandong 250101, China.
[4]BIT Chongqing Institute of Microelectronics and Microsystems, Chongqing 401332, China.

F0917 KEYFRAME-BASED GLOBAL LOCALIZATIONINLARGE-SCALE SCENES

Si Sun[1,3], Jian Li[1,2*], Jieqiong Wu[1,2],Zihuan Hao[1,2],Dongqing Yang[3]
[1]Radar Research Lab,School of Information and Electronic, Beijing Institute of Technology, Beijing, China
[2]Key Laboratory of Electronic and Information Technology in Satellite Navigation (Beijing Institute of Technology), Ministry of Education, Beijing, China
[3]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, China

F0992 AN IMPROVED COMPRESSIVE SENSINGALGORITHM BASED ON SPARSE BAYESIANLEARNING FOR RFPA RADAR

Ju Wang[1], Yi Zhao[1], Bingqi Shan[1*], Yi Zhong[1]
[1]School of Information and Electronics Beijing Institute of Technology, Beijing, China

Poster Session 4: Target and Environment Characteristics

Time: **15: 30 - 16: 30, December 4, 2023**
Place: **Liangjiang Grand Ballroom 1+2**
Chair: **Dr. Kai Cui, Beijing Institute of Technology, China**
Dr. Zengdi Bao, Beijing Institute of Technology, China

C0016 INFLUENCE OF NOISE AND BANDWIDTH ON LMS-BASEDADAPTIVE NOISE CANCELLATION IN FMCW RADAR INTERFERENCE MITIGATION

Yihan Wang[1], Jinhu Li[1], Fangzheng Zhang[1*], Shilong Pan[1]
[1]College of Electronic and Information Engineering,
Nanjing University of Aeronautics and Astronautics, Nanjing, China

C0024 INTERRUPTED-SAMPLING REPEATER JAMMING(ISRJ)SUPPRESSION METHOD BASED ON SEGMENTED FRESH FILTERING TARGET DETECTION

Haibo Liu1[2], Jiamian Li[1], Shanshan Lu[3], Feng Li[14*], Liang Zhang[1]
[1]Radar Research Laboratory, School of Information and Electronics, Beijing Institute of Technology, Beijing, 100081, China
[2]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, Shandong, China
[3]Xi'an Electronic Engineering Research Institute, Xi'an, China
[4]Beijing Institute of Technology Chongqing Innovation Center

C0051 INTERFERENCE MITIGATION FOR AUTOMOTIVE RADAR IN CONTINIOUS WAVELET TRANSFORM DOMAIN

Zheng Zhang[1], Shengheng Liu[1*], Lian Kou[2], Danfeng Shan[2], Tai Fei[3], Yongming Huang[1]
[1]Southeast University School of Information Science and Engineering, Nanjing 210096, China
[2]HELLA Shanghai Electronics Co., Ltd., Shanghai 201201, China
[3]HELLA GmbH & Co. KGaA, Lippstadt 59552, North Rhine-Westphalia, Germany

C0052 WIDEBAND JAMMING MITIGATION FOR TARGET DETECTION BASED ON TIME-FREQUENCY ANALYSIS AND SPARSE RECOVERY METHOD

Hai Long Zhang[1,2], Gong Zhang[1*], Ning Zhang[2]
[1] Key Laboratory of Radar Imaging and Microwave Photonics, Ministry of Education, Nanjing University ofAeronautics and Astronautics, Nanjing, China
[2] Nanjing Marine Radar Institute, Nanjing, China

C0090 RFI SUPPRESSION METHOD WITH IMPROVED EIGEN SUBSPACE DECOMPOSITION FOR LOW-FREQUENCY RADAR

Lin Chen[1], Xin Xie[2, *], Youwang Chen[2], Yunkai Deng[2,3,4], Xingwang Du[1]
[1]School of Electronic and Information Engineering, Chongqing Three Gorges University, Chongqing, China
[2]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[3]Chongqing Innovation Centre, Beijing Institute of Technology, Chongqing, China
[4]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, China

C0148 POLARIZATION DOMAIN COORDINATE MAPPING CANCELLATION METHOD BASED ON LEASTNORM SOLUTION OF COMPATIBLE NONHOMOGENEOUS LINEAR EQUATIONS

Yuguan Hou[1*], Yuanpeng Han[1], Caokui Liao[1], Yuwei Cai[1], and Xingpeng Mao[1]
[1]Harbin Institute of Technology, Harbin, China

C0250 INFLUENCE OF APERTURE FILL TIME OFWIDEBAND INTERFERENCE ON ANTI-JAMMINGMETHOD OF MULTI-CHANNEL SAR

Yuanzheng Wang[1*], Long Zhuang[1], Yuekun Wang[1]
[1]Nanjing Institute of Electronic Technology, Nanjing, China

C0267 FDA RADAR TRANSMIT POWER ALLOCATION BASED ON THEQ_LEARNING ALGORITHM IN SPECTRUM-DENSE SCENARIOS

Changlin Zhou[1], Chunyang Wang[1], Jian Gong[1*], Mingjie Liu[1], Jiahua Xu[1]
[1]Air Defense and AntiMissile School, Air Force Engineering University, Xi'an,, China

C0351 JOINT FREQUENCY AND PRF AGILITYWAVEFORM DESIGN AND SIGNAL COHERENT ACCUMULATION AGAINST CROSS-PULSEREPEATER DECEPTION JAMMING

Endi Zhu[1], Yachao Li[1*], Jiadong Wang[2], Jiabao Ding[1], Jingyi Wei[1], Mingyue Ding[1]
[1]National Key Laboratory of Radar Signal Processing, Xi'an, China
[2]Academy of Advanced Interdisciplinary Research, Xi'an, China

C0436 THINNED ARRAY ANTI-JAMMING ANGLE MEASUREMENT TECHNOLOGY BASED ON OBLIQUE PROJECTION

Jiahao Tian[1], Jianxiong Zhou[1 *], Kaixin Zhou[1], Yu Lan[1]
[1]College of Electronic Science and Technology, National University of Defense Technology, Changsha, China

C0484 INTERFERENCE MITIGATION METHOD OF AUTOMOTIVE RADAR BASED ONHF-S-LFM WAVEFORM

Zhenpeng Sun[1], Chen Miao[1*], Wentao Zhang[1],Yue Ma[1], Wen Wu[1]
[1]Key Laboratory of Near-Range RF Sensing ICs & Microsystems, Nanjing University of Science and Technology, Nanjing,China

C0501 A FREQUENCY-DOMAIN SPARSE MULTIFUNCTIONAL ANTI-JAMMING WAVEFORMDESIGN AND PROCESSING METHOD

Wenxin Guan[1,2], Shaoqiang Chang[1,2,3*], Quanhua Liu[1,2], Xinliang Chen[4,1,2,3]
[1]School of Information and Electronics Beijing Institute of Technology, Beijing, China
[2]Key Laboratory of Electronic and Information Technology in Satellite Navigation, Beijing Institute of Technology, Beijing, China
[3]Chongqing Innovation Center, Beijing Institute of Technology, Beijing, China
[4]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing, China

C0511 RESEARCH ON THE INFLUENCE OF ARRAYCONFIGURATION AND NON-IDEAL FACTORS ONTHE INTERFERENCE SUPPRESSION PERFORMANCE OF DISTRIBUTED ARRAY RADARS

Xinran Sui[1], Ziming Zheng[1], Zhennan Liang[1*], Quanhua Liu[1,2]
[1]Key Laboratory of Electronic and Information Technology in Satellite Navigation, Ministry of Education, Beijing Institute of Technology, 100081, Beijing, China
[2]Chongqing Innovation Center, Beijing Institute of Technology, 401120, Chongqing, China

C0512 PERIODIC ISRJ SUPPRESSION WITHCONVOLUTION GENERATIVE NETWORK INDELAY-DOPPLER DOMAIN

Beichen Fan[1*], Pengcheng Wan[1], Yuanzhe Li[1], Weidong Hu[1], Xiaoyong Du[1], Tao Xu[2]
[1]National Key Laboratory of Automatic Target Recognition, National University of Defense Technology, Changsha, China
[2]State Key Laboratory of Complex Electromagnetic Environment Effects on Electronics and Information System(CEMEE), National University of Defense Technology, Changsha, China

C0533 FORWARDING FALSE TARGET JAMMINGSUPPRESSION METHOD BASED ON PEAKDISTRIBUTION CHARACTERISTICS

Weiran Wang[1], Jiaxiang Zhang[2], Zhennan Liang[2], Xinliang Chen[1,2,3*]
[1]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing, China
[2]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[3]Key Laboratory of Electronic and Information Technology in Satellite Navigation (Beijing Institute of Technology), Ministry of Education, Beijing, China

C0591 FALSE TARGET JAMMING IDENTIFICATION BASED ON CFAR WITHWIDEBAND DISTRIBUTED RADAR

Man Zhang[1*], Shaopeng Wei[2], Yonghong Xue[3], Lei Zhang[4]
[1]School of Electronics and Communication Engineering, Guangzhou University, Guangzhou 510006, China
[2]the College of Oceanography and Space Informatics, China University of Petroleum (East China), Qingdao266580, China
[3]Beijing Institute of Tracking and Communication Technology, Beijing 100094, China
[4]School of Electronics and Communication Engineering, Sun Yat-sen University, Guangzhou 510275, China

C0596 SUPPRESSION OF MAINLOBE DECEPTIVE JAMMERSUSING MULTI-DOMAIN CODING

Xiang Zhang[1], Lan Lan[1*], Guisheng Liao[1], Shengqi Zhu[1], Xianxiang Yu[2], Guolong Cui[2]
[1]National Key Laboratory of Radar Signal Processing Xidian University, No.2 South Taibai Road, 710071,Xi'an, China
[2]School of Electronic Engineering, University of Electronic Science and Technology of China, No. 2006, XiYuan Da Dao, Gao Xin Xi Qu, 611731, Chengdu, China

C0610 A NOVEL SPACE-TIME METHOD FOR MULTI-CHANNEL SARINTERFERENCE MITIGATION

Xinyu Guan[1], Jiale Chen[1], Junfeng Zhu[2*], Kun Deng[1], Jixin Chen[1], Yan Huang[1*]
[1]State Key Lab of Millimetre Wave, Southeast University, Nanjing 210096, China
[2]SiChuan Cheng-Nan-Da Railway Investment Co., LTD, Shudao Investment Group, Chengdu 610000, China

C0625 SMSP JAMMING DETECTION METHOD FORAIRBORNE RADAR IN CLUTTER ENVIRONMENT

Jiachen Li[1,3], Zhi Sun[1*], Yukai Kong[1], Xianxiang Yu[1], Jing He[2],
Guolong Cui[1], ZhaoyinXiang[3]
[1]School of Information and Communication Engineering, University of Electronic Science and Technology of China, Chengdu, the People's Republic of China
[2]Southwest China Research Institute of Electronic Equipment, Chengdu, the People's Republic of China
[3]School of Mathematical Sciences, University of Electronic Science and Technology of China, Chengdu, the People's Republic of China

C0629 MAINLOBE DECEPTIVE INTERFERENCE MITIGATION IN EPCMIMO RADAR BASED ON COVARIANCE MATRIXRECONSTRUCTION

Jie Gao[1], Shengqi Zhu[1*], Lan Lan[1*], Jing-Jing Li[2], Ximin Li[1], Zhixin Liu[1]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, China
[2]Air and Missile Defense College of Air Force Engineering University, Xi'an, China

C0633 A NOVEL METHOD FOR SUPPRESSING DENSE REPEATEDJAMMING IN FREQUENCY AGILE RADAR BASED ONSPARSE RECOVERY

Wantian Wang[1], Xi Yu[1], Juntian Bo[1], Hongzhang Gao[1], Hao Wu[1], Wei Li[1],
Jiahao Zhang[1*]
[1]National Key Laboratory of Electromagnetic Energy, Naval University of Engineering, Wuhan, China

C0645 DECEPTIVE INTERFERENCE SUPPRESSION WITH A NOVEL FDAPMIMO RADAR

Fa Wei[1], Shengqi zhu[1*], Lan Lan[1*], Jing-Jing Li[2],
Ximin Li[1], Zhengxi Wang[1], GuishengLiao[1]
[1]The National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, China
[2]Air and Missile Defense College of Air Force Engineering University, Xi'an, China

C0655 AN IMPROVED FORWARD-BACKWARD SPATIAL SMOOTHINGMUSIC ALGORITHM FOR COHERENT SIGNAL DIRECTION FINDING

Yuchen Wu[1*], Yu Sun[2], Wei Ge[1], Weijun Hong[1*]
[1]Beijing Laboratory of Advanced Information Network, Beijing University of Posts and Telecommunications, Beijing, China
[2]The Radio Monitoring Station of Heilongjiang Province, Heilongjiang, China

C0738 ANTI-RANGE DECEPTIVE JAMMING METHOD VIAPOLARIZATION RECEPTION DESIGN

Weiji Meng[1], Bunian Pan[1], Zhi Sun[1], Xianxiang Yu[1], Guolong Cui[1], Lei Zhu[2*]
[1]School of Information and Communication Engineering, University of Electronic Science and Technology of China, Chengdu, the People's Republic of China
[2]Southwest China Research Institute of Electronic Equipment, Chengdu, the People's Republic of China

C0757 DECEPTIVE JAMMING SUPPRESSION BASED ON COMPRESSEDSENSING AND SLOW-TIME CODING VIA SINGLE-CHANNEL SAR

Jiale Chen[1], Xinyu Guan[1], Kun Deng[1], Yuan Mao[1], Xuezhi Chen[1], Yan Huang[1*]
[1]State Key Lab of Millimeter Waves, Southeast University, Nanjing, China

C0821 AN IDENTIFICATION ALGORITHM OF CROSS POLARIZEDJAMMINGFOR SINGLE POLARIZED RADAR

Xiaowen Zhang[1,2,3*], Guolong Cui[1], Dan Li[2]
[1]University of Electronic Science and Technology of China, ChengDu, China
[2]AVIC Leihua Electronic Technology Research Institute, WuXi, China
[3]Aviation Key Laboratory of Science and Technology onAISSS, WuXi, China

C0823 SUPPRESSION OF MAINLOBE DECEPTIVE JAMMERS WITHPOLARIMETRIC FDA-MIMO

Yixuan Guo[1], Shengqi Zhu[1*], Lan Lan[1*], Jie Gao[1], Yuxiang Gao[1]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, China

C0825 FEW-SHOT RADAR ACTIVE DECEPTION JAMMING RECOGNITION:SPATIAL-GRAPH AGGREGATED FEATURE FUSION BASEDON TRANSFER LEARNING

Tengxin Wang[1], Yice Cao[1], Zhenhua Wu[1], Yonghong Xue[2], Lei Zhang[3], Lixia Yang[1]
[1]Information Materials and Intelligent Sensing Laboratory of Anhui Province, Anhui University, Hefei 230601, China
[2]Beijing Institute of Tracking and Communication Technology, Beijing 100094, China
[3]School of Electronics and Communication Engineering, Sun Yet-Sen University, Guangzhou 510006, China

C0836 MAINLOBE DECEPTIVE JAMMING SUPPRESSION WITHPOLARIMETRIC CHARACTERISTIC FDA-MIMO RADAR

Tiantian Zhong[1], Haihong Tao[1*], Han Cao[1], Haiyun Liao[1]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, China

C0839 COOPERATIVE ANTI-JAMMING ALGORITHM FORNETWORKED RADARS BASED ON STRETCHPROCESSING

Xiaoyu Cong[1*], Chenyu Zhu[1], Shichen Shan[1], Yubing Han[1]
[1]School of Electronic and Optical Engineering, Nanjing University of Science and Technology, Nanjing, China

C0846 A DENSE FALSE TARGET JAMMING SUPPRESSIONMETHOD BASED ON INTER-PULSE PHASE AGILITYWAVEFORM

Yi Liu[1,2], Lixiang Ren[1,2*], Chaoxu Wang[1,2], Zihao Liu[1,2], Yuhang Gao[1,2], Kang Zhang[3]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China
[2]Key Laboratory of Electronic and Information Technology in Satellite Navigation (Beijing Institute of Technology), Ministry of Education, Beijing, 100081, China
[3]Beijing Institute of Radio Measurement, Beijing, China

C0863 UNSUPERVISED ANOMALY DETECTION FORRADAR ACTIVE DECEPTION JAMMING BASED ONDENOISING DIFFUSION IMPLICIT MODEL

Jun Qian[1], Zhenhua Wu[1,2*], Yice Cao[1*], Wenjie Guo[1],
Jinxin Cui[1], Lei Zhang[3], LixiaYang[1]
[1]Information Materials and Intelligent Sensing Laboratory of Anhui Province, Anhui University, Hefei, 230601, China
[2]East China Research Institute of Electronic Engineering, Hefei, 230031, China
[3]School of Electronics and Communication Engineering, Sun Yet-Sen University, Guangzhou, 510006, China

C0874 REINFORCEMENT LEARNING BASED TIMEDOMAIN MUTUAL INTERFERENCE AVOIDANCEFOR AUTOMOTIVE RADAR

He Xiao[1], Jianping Wang[2], Runlong Li[1], Yuan He[1*]
[1]Key Laboratory of Trustworthy Distributed Computing and Service, Beijing University of Posts and Telecommunications, Beijing, China
[2]Faculty of EEMCS, Delft University of Technology, Delft, Netherlands

C0882 SSFEN：SELF-SUPERVISED FEATUREEXTRACTION NETWORK FOR INTERRUPTEDSAMPLING REPEATER JAMMING SUPPRESSION

Tengwei Ji[1], Zhenhua Wu[12*], Yice Cao[1*], Jiafei Xu[1],
Jinxin Cui[1], Lei Zhang[3], Lixia Yang[1]
[1]Information Materials and Intelligent Sensing Laboratory of Anhui Province, Anhui University, Hefei 230601, China
[2]East China Research Institute of Electronic Engineering, Hefei 230031, China
[3]School of Electronics and Communication Engineering, Sun Yet-Sen University, Guangzhou 510006, China

C0885 A NOVEL UNSUPERVISED ANTI-INTERMITTENTSAMPLING JAMMING METHOD FOR INTRA-PULSEAND INTER-PULSE FREQUENCY AGILE RADAR

Chenyang Zhou[1], Zhenhua Wu[12*], Yice Cao[1], Jiafei Xu[1], Lei Zhang[3], Lixia Yang[1],Wenjie GUO[1]
[1]Information Materials and Intelligent Sensing Laboratory of Anhui Province, Anhui University, Hefei, 230601, China
[2]East China Research Institute of Electronic Engineering, Hefei, 230031, China
[3]School of Electronics and Communication Engineering, Sun Yet-Sen University, Guangzhou, 510006, China

C0955 A RAPID ASSESSMENT METHOD FOR JAMMING SITUATIONTHREAT BASED ON SIGNAL-LEVEL

Min Zhao[1], Jiaxiang Zhang[2], Zhennan Liang[2], Xinliang Chen[1,2,3*], Quanhua Liu[2,4]
[1]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing, China
[2]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[3]Key Laboratory of Electronic and Information Technology in Satellite Navigation (Beijing Institute of Technology), Ministry of Education, Beijing, China
[4]Beijing Institute of Technology Chongqing Innovation Center, Chongqing, China

E0028 RESEARCH ON SAR IMAGING OF HILLSIDE COMPOSITEENVIRONMENT BASED ON SBR-FBSM METHOD

Zhaolong Wang[1*], Xiaokuan Zhang[1], Chuangming Tong[1], Binfeng Zong[1], Jiahua Xu[1], Ninghui Li[1], Fan Lv[1], Qingkuan Wang[1], Yijin Wang[1], Tong Wang[1]
[1]Air Defense and Antimissile School, Air Force Engineering University, Xi'an, China

E0046 A NOVEL RADAR EMITTER FINGERPRINT FOR MULTIPLE PATHPROPAGATION ENVIRONMENT

Xuefei Wang[1], Mengtao Zhu[2,3], Ruibin Zhang[1], Yunjie Li[1,3*]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]School of Cyberspace Science and Technology, Beijing Institute of Technology, Beijing, China
[3]Laboratory of Electromagnetic Space Cognition and Intelligent Control, Beijing, China

E0054 THREE-DIMENSIONAL SCATTERING CENTER RECONSTRUCTION FORSINGLE-FREQUENCY MIMO ARC ARRAY RADAR

Qiming Zhang[1], Jinping Sun[1*], Dandan Gu[2], Changshun Yuan[3]
[1]School of Electronic Information Engineering, Beihang University, Beijing, China
[2]National Key Laboratory of Scattering and Radiation, Shanghai, China
[3]Key Laboratory of Intelligent Sensing Materials and Chip Integration Technology of Zhejiang Province, Hangzhou Innovation Institute of Beihang University, Hangzhou, China

E0059 RESEARCH ON TARGET CHARACTERISTICS AND CLASSIFICATIONTECHNOLOGY OF SMALL UAV

Ma Xiaojing[1], Wu Weilu[1]
[1]School of Electronic Confrontation National University of Defense Technology. hefei. 230037)

E0135 ANALYSIS OF SHIPBORNE CROSS-EYE JAMMING COMBINEDWITH RANGE-GATE PULL-OFF JAMMING

Yun Cheng[1], Tianpeng Liu[1*], Jiaqi Tan[1]
[1]College of Electronic Science and Technology, National University of Defense Technology, Changsha, China

E0149 RETRODIRECTIVE CROSS-EYE JAMMING BASED ON THE PHASECONJUGATING ARRAY

Tianpeng Liu[1], Xuxiang Fan[1*], Yun Cheng[1], Jiaqi Tan[1], Zhongguo Wu[2]
[1]College of Electronic Science and Technology, National University of Defense Technology, Changsha, China
[2]63892 Troop, The Chinese People's Liberation Army, Luoyang, China

E0155 TYPICAL ACTIVE JAMMING PERFORMANCEANALYSIS OF TRIANGULAR FMCW

Weiwu Lin[1], Xizhang Wei[1*], Jie Xiao[1], Jia Sun[1]
[1]School of Electronics and Communication Engineering, Sun Yat-sen University, Shenzhen, China

E0157 CLOSE-LOOP EMS EMULATOR WITH 3-D RCS MAP ANDGEOGRAPHICAL INFORMATION BASED PROPAGATION MODELLING

Jian Fang[1*], Qiqin Li[1], Jiehao Zhu[1], Jiang Liu[1]
[1]National Key Laboratory of Electromagnetic Space Security, Chengdu, P.R.China

E0162 STATISTICAL ANALYSIS OF SWARM TARGETS RADAR ECHO

Yan Liu[1]
[1]Department of Electronics and Internet of things, Chongqing College of Electronic Engineering, Chongqing, China

E0273 WIDEBAND RADAR ECHO CANCELLATION BASEDON JOINT AZIMUTH INTERRUPTED-SAMPLINGAND FREQUENCY MODULATION

Qihua Wu[1], Lingyu Peng[1*], Xiaobin Liu[1], Feng Zhao[1], Xiaofeng Ai[1], Xiaoyi Pan[1]
[1]College of Electronic Science and Technology, National University of Defense Technology, Changsha, China

E0415 TIME-VARYING ELECTROMAGNETICSCATTERING FEATURE EXTRACTION ANDANALYSIS FOR ROTOR TARGETS

Ji'er Wang[1*], Hongmei Ren[1], Chunzhu Dong[1],Zhihe Xiao[1],Ling Guan[1]
[1]National Key Laboratory of Scattering and Radiation, Beijing, China

E0422 DESIGN OF POLARIZATION-INSENSITIVEMULTILAYER ABSORBER FOR ULTRA-WIDEBANDRCS REDUCTION

Jian Yang[1], Jiadong Shang[1], Wenjing Zhang[1*]
[1]Beijing Institute of Remote Sensing Equipment, Beijing, China

E0438 AN INTERPULSE SHIP DISCRIMINATION METHODIN BISTATIC RADAR SYSTEM

Ye Yang[1], Kai Da[2], Yongfeng Zhu[2*], Qijun Lian[1], Qiang Fu[1]
[1]National Key Laboratory of Science and Technology on ATR, National University of Defence Technology, Changsha, China
[2]College of Electronic Science and Technology, National University of Defence Technology, Changsha, China

E0547 SEA CLUTTER PARAMETRIC MODEL MODIFICATION BASED ONMEASURED DATA

LiQiang[1,2], Chen Yong[2], DangXun Wang[2*], YinHong Cheng[1,2], XuShu Wen[3], ZhouHao[3]
[1]College of Information and Communication Engineering, Communication University of China, Beijing, China
[2]National Key Laboratory Scattering and Radiation, 100854, Beijing, China
[3]Xidian University, 710126, Xi'an, China

E0573 DIFFUSION MODEL IN SEA CLUTTER SIMULATION

Haocheng Yang[1*], Yue Lin[1], Jianrong Zhang[1], Yulei Qian[1],
Yuanpeng Liu[1], Huaxing Kuang[1,2]
[1]Nanjing Marine Radar Institute, Nanjing, China
[2]Southeast University, Nanjing, China

E0592 THE PRINCIPLE ANALYSIS OF TWO-ELEMENT CROSS-EYEJAMMING BASED ON PHASED ARRAY

Haonan Yang[1], Liang Zhou[1*], Yongcai Liu[1], Binbin Su[1], Jin Meng[1]
[1]National Key Laboratory of Science and Technology on Vessel Integrated Power System, Naval University of Engineering, Wuhan, China

E0606 CHAFF JAMMING RECOGNITION BASED ONPULSE DOPPLER RADAR

Tianjun Zhang[1], Jiaxiang Zhang[2], Zhennan Liang[2], Xinliang Chen[1,2], Yuanyuan Song[2,3*]
[1]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing, China
[2]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[3]Key Laboratory of Electronic and Information Technology in Satellite Navigation (Beijing Institute of Technology), Ministry of Education, Beijing, China

E0679 CORRECTION OF IONOSPHERICDISPERSIONFORSPACEBORNE SAR BASED ONDUAL-ANTENNASCHEME

Xincheng Gao[1], Wei Guo[1,2], Xiaoping Li[1,2], Bowen Bai[1], Haifeng Sun[1,2]
[1]School of Aerospace Science and Technology, Xidian University, Xi'an, 710071, China
[2]CountryPeng Cheng Laboratory, Shenzhen, 51800, China

E0705 HIGH-RESOLUTION RADAR GROUND CLUTTERGENERATION BY DENOISING DIFFUSIONPROBABILITY MODEL

Bingqian Yu[1,4], Qiang Zhou[1], Yanhua Wang[1,2,3,4,5], Liang Zhang[1,2,3*]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China
[2]The Electromagnetic Sensing Research Center of CEMEE State Key Lab, Beijing Institute of Technology, Beijing 100081, China
[3]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing 100081, China
[4]Beijing Institute of Technology Chongqing Innovation Center, Chongqing 401120, China
[5]Advanced Technology Research Institute, Beijing Institute of Technology, Shandong 250300, China

E0768 POLARIZATION PARAMETERS ESTIMATION OFRADAR JAMMING VIA FOUR-PROBE TWODIMENSIONAL GOLDEN SECTION

Ziyu Zhao[1], Ping Lang[2], Xiongjun Fu[1,3,*]Jian Dong[1,3,**], Yang Liu[4]
[1]School of Integrated Circuits and Electronics, Beijing Institute of Technology, 100081, Beijing, China
[2]Department of Electronic Engineering, Tsinghua University, 100084, Beijing, China
[3]Tangshan Research Institute of BIT, 063015, Tangshan, China
[4]Beijing Institute of Remote Sensing, 100854, Beijing, China

E0854 OPEN SET RECOGNITION OF RADAR ACTIVE JAMMING SIGNALSBASED ON RELATIVE ENTROPY

Zhongyi Guan[1], Shengqi Zhu[1], Lan Lan[1*], Ximin Li[1],
Yuxiang Gao[1], Xiang Zhang[1],Yanxing Wang[1]
[1]National Key Lab of Radar Signal Processing, Xidian University, No.2 South Taibai Road, 710071, Xi'an, China

E0907 INTRA-PULSE MODULATION FEATURE ANALYSISAND PARAMETER ESTIMATION OF PHASE ANDFREQUENCY MULTI-MODULATION SIGNAL

Chenle Xue[1,2], Zhiye Jiang[3], Lixiang Ren[1,2*], Huayu Fan[1,4], Quanhua Liu[1,5]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China
[2]Key Laboratory of Electronic and Information Technology in Satellite Navigation (Beijing Institute of Technology), Ministry of Education, Beijing 100081, China
[3]National Key Laboratory of Science and Technology on Test Physics and Numerical Mathematics, Beijing Institute of Space Long March Vehicle, Beijing 100076, China
[4]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing 314019, China
[5]Chongqing Innovation Center, Beijing Institute of Technology, Chongqing 401120, China

E0932 PRECISE SIMULATION OF GROUND PENETRATIONRADAR DATA ON INHOMOGENEOUS MEDIA

Dingwu Dai[1], Lilong Zou[2], Yao Wang[1], Hai Liu[1*]
[1]Guangzhou University, Guangzhou, China
[2]University of West London, London, United Kingdom

E0979 SIMULATION METHODS AND DEVELOPMENT TRENDS OF RADAR TARGETMOTION FEATURES

GUO JIE[1], Li Xin[2], SI BIAO[3*]
[1]National Key Laboratory of Scattering and Radiatong, Beijing, China

E0997 PASSIVE ANTI-JAMMING DECISION-MAKING BASED ON DEEPREINFORCEMENT LEARNING

Jiaxiang Zhang[1], Weiran Wang[1,2], Zhennan Liang[1*], Xinliang Chen[1,2], Quanhua Liu[1,3,4]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing, China
[3]Key Laboratory of Electronic and Information Technology in Satellite Navigation (Beijing Institute of Technology), Ministry of Education, Beijing, China
[4]Beijing Institute of Technology Chongqing Innovation Center, Chongqing, China

Poster Session 5: Radar Systems

Time: 15: 00 - 16: 00, December 5, 2023
Place: Gaoke Junior Ballroon 2
Chair: Dr. Zhennan Liang, Beijing Institute of Technology, China
Prof. Yong Chen, The 38Th Research Institute Of China Electronics Technology Group Corporation, China

A0039 RESEARCH ON KEY TECHNOLOGIES OF PORTABLE MULTIFUNCTION BATTLEFIELD RECONNAISSANCE RADAR

Jinliang DONG, Qingfeng SUN, Gan WANG, Yumeng ZHANG
Nanjing Glarun Defense System Co.,Ltd, Nanjing, China

A0067 A METHOD FOR ANTI INTERRUPTED SAMPLING AND REPEATED JAMMING WITHIN MAIN LOBE BASED ON FIXED REFLECTION ARRAY

Lu Zeyuan[1*], Zhang Xuesen[1], Yang Xueya[1], Liu Shuai[1], Zhou Xingang[2]
[1]China Electronics Technology Corporation 38th Research Institute, Hefei, China
[2]PLA national defense university military management college, Beijing, China

A0101 TARGET LOCALIZATION FOR SIMO RADAR USING TENSOR DECOMPOSITION

Yuanbing Cheng[*], Shijian Shen
Nanjing Research Institute of Electronics Technology, Nanjing, China

A0102 RANGE-DOPPLER CHARACTERISTICS OF MULTIROTOR UNMANNED AERIAL VEHICLE IN LOW-FREQUENCY PASSIVE RADAR

Zhang Wenming, Fu Wenhui[*], Xie Xiaoxia, Ai Xiaofeng
State Key Laboratory of Complex Electromagnetic Environment Effects on Electronics and Information System, National University of Defense Technology, Changsha 410073, China

A0121 AN ANGLE MEASUREMENT METHOD OF SUM-DIFFERENCE BEAMS FOR MACHINE-SCANNING VHF RADAR

TAO Yu, LE Yi, QIN Zhile, YING Yu
Nanjing Glarun Defense System Company, Nanjing, China

A0124 SAR TWO-DIMENSIONAL BEAM SCHEDULING METHOD FOR AZIMUTH LARGE ANGLE SCANNING

Jin Han
East China Research Institute of Electronic Engineering, Hefei 230088, China

A0192 A DUAL-BAND MICRO-DOPPLER FEATURE FUSION RECOGNITION METHOD BASED ON SELF-ATTENTION MECHANISM IN CHANNEL DOMAIN

Qingyuan Zhao, Chunmao Ye, Yaobing Lu
Beijing Institute of Radio Measurement, Beijing 100854, China

A0198 A 2-D SPECTRUM RECONSTRUCTION METHOD FOR SPACEBORNE SLIDING-SPOTLIGHT SAR WITH BV-PRI

Hui Kuang, Xianghao Kong, Yi Li, Wen Jiang*, Yu Wang, Heli Gao, Yashi Zhou
Institute of Remote Sensing Satellite, China Academy of Space Technology, Beijing, China

A0205 A MIMO MILLIMETER-WAVE RADAR FOR HIGH-RESOLUTION IMAGING

Jixing Guan[1*], Wei Yin[2], Yewei Xia[2]
[1]Artificial Intelligence Institute of China Electronics Technology Group Corporation, Beijing, China
[2]The 54th Research Institute of China Electronics Technology Group Corporation, Shijiazhuang, China

A0223 JOINT OPTIMIZATION OF TRANSMIT WAVEFORM AND MISMATCHED FILTER FOR JAMMING SUPPRESSION IN DISTRIBUTED RADAR

Mengmeng He[1*], Yizhen Jia[1], Wen-Qin Wang[1], Shunsheng Zhang[2]
[1]School of Information and Communication Engineering, University of Electronic Science and Technology of China, Chengdu, Sichuan, P. R. China, 611731
[2]Research Institute of Electronic Science and Technology, University of Electronic Science and Technology of China, Chengdu, Sichuan, P. R. China, 611731

A0231 GROUND PENETRATING RADAR TARGET DETECTION METHOD BASED ON OPTIMIZED FASTER RCNN AND K-MEANS CLUSTERING

Changle Xin[1], Wentai Lei[2*], Chaopeng Luo[3*], Wei Xue[3]
[1]School of Computer Science and Engineering, Central South University, Changsha, China
[2]School of Electronic Information, Central South University, Changsha, China
[3]Science and Technology on Near-Surface Detection Laboratory, Wuxi, China

A0253 MOTION MODELING AND ECHO DOPPLER FREQUENCY ANALYSIS OF MILLIMETER WAVEFUZE

Yingzhen Wei[1]， Qi Li[1]， Zhuangzhi Han[2], Guangxia Liu[1]
[1]School of Electronic and Information Engineering, Hebei University of Technology, Tianjin 300401, China
[2]Department of Electronic and Optical Engineering, Army Engineering University, Shijiazhuang 050003, China

A0259 RESEARCH ON SATELLITE-GROUND COLLABORATIVE LOCATION OF SPREAD SPECTRUM SIGNAL

Chang Xiong Xia, Qun Wan, Feng Gao
School of Information and Communication Engineering, University of Electronics Science and Technology of China, Chengdu, China

A0285 EXPLOITING THE DETECTION PERFORMANCE POTENTIAL OF HYBRIDPA-MIMO RADAR

Cheng Qi, Junwei Xie, Haowei Zhang, Zhengjie Li, Gangsheng Zhang, Zihang Ding
Air Force Engineering University, Xi'an, China

A0333 LOW SIDELOBE PATTERN SYNTHESIS FOR AIRBORNE DISTRIBUTED COHERENT ACTIVE PHASED ARRAY RADAR

Xiuci Mo[1,2], Zihao Chen[1], Fengfeng Chen[1], Weidong Hu[2*]
[1]AVIC Leihua Electronic Technology Research Institute, Wuxi, China
[2]National Key Laboratory of Automatic Target Recognition, National University of Defense Technology, Changsha, China

A0363 SPACE-TIME ADAPTIVE PROCESSING ALGORITHM VIA RECIPROCAL-FILTER FOR AIRBORNE PASSIVE RADAR

Jinxin Sui*, Jun Wang*, Ziqian Huang, Aopeng Qu
National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an 710071, China

A0364 A NOVEL DIRECTION FINDING METHOD WITH Y-TYPE BASELINE INTERFEROMETER

Jian Yang*, Huoming Li, Mengchen Dong
School of Engineering, Rocket Force University of Engineering, Xi'an 710025, China;

A0365 NODES SELECTION FOR AREA SURVEILLANCE IN NONCOHERENT RADAR NETWORK BASED ON NUMERICAL OPTIMIZATION

Rentuo Tao[1,2], Xianzhe Xu[1,2], Shikang Li[1,2], Meng Zhang[1,2],
Yawei Chen[1,2],Linghao Xia[1,2]
[1]Key Laboratory of Intelligent Sensing Technology of CETC
[2]Nanjing Research Institute of Electronics Technology, Nanjing, China

A0373 A VIRTUAL REFERENCE STATION CONSTRUCTION METHOD BASED ON TDOA PREDICTION FOR IGSO TRI-SATELLITE TDOA GEOLOCATION SYSTEM

Yihao Song[1,2], Puming Huang[1], Bo Liu[1], Xiaoyang Chen[1,2*], Shuai Li[1,2]
[1]Institute of Telecommunication and Navigation Satellites, China Academy of Space Technology, Beijing 100094, China
[2]Innovation Centre of Satellite Communication System, CNSA, Beijing 100094, China

A0377 A SPECIAl TYPE OF THE PASSIVERADAR IMAGING USING THE SELF-MULTIPATH SIGNALS ON SATELLITES

Yi Zhou[1], Ying Zhou[2], Hui Ma[1*], Shenghua Zhou[1], Yujie Zhang[1],
Haoran Sun[1], XueWang[3], Lin Liu[2], Hongwei Liu[1]
[1]National Laboratory of Radar Signal Processing, Xidian University, Xi'an, China
[2]Beijing Institute of Remote-sensing Equipment Science and Technology on Millimeter-wave Laboratory, Beijing, China
[3]Institude of Information Sensing, Xidian University, Xi'an, China

A0408 ANALYSIS OF THE EFFECT OF VIBRATION ERRORS IN ARC ARRAY SYNTHETIC APERTURE RADAR

Mengxue Xiao[1,2], Pingping Huang[1,2], Wei Xu[1,2*], Weixian Tan[1,2], Zhiqi Gao[1,2]
[1]College of Information Engineering, Inner Mongolia University of Technology, Hohhot 010080, China
[2]Inner Mongolia Key Laboratory of Radar Technology and Application, Hohhot 010051, China

A0412 CLUTTER SUPPRESSION METHOD OF WIND FARM FOR AIRBORNE ARRAY RADAR BASED ON MULTI-CHANNEL DATA JOINT PROCESSING

He Weikun*, Li Shuang
Tianjin Key Laboratory for Advanced Signal Processing, Tianjin, China

A0437 KA-BAND SPACEBORNE VIDEO SAR IMAGING WITH LUOJIA-2

Maoqiang Jing[1], Jialei Wang[1], Feng Xiao[2*], Dehua He[3], Guo Zhang[1],
Yanjun Zhang[4],Jiaguo Zu[3], Songbai Yu[3], Hanwei Sun[2], Hongzhan Li[1], Heli Gao[3]
[1]State Key Laboratory of information Engineering in Surveying, Mapping and Remote Sensing of Wuhan University, Wuhan, China
[2]Beijing Institute of Radio Measurement, Beijing, China
[3]Institute of Remote Sensing Satellites (IRSS) of the China Academy of Space Technology (CAST), Beijing, China
[4]State Key Laboratory of Water Resources Engineering and Management of Wuhan University, Wuhan, China

A0443 JOINT POWER AND BEAM ALLOCATION STRATEGY BASED ON CI FUSION IN NETWORKED COLLOCATED MIMO RADAR SYSTEM

Huang Jieyu[1], Xie Junwei[1], Zhang Haowei[1*], Li Zhengjie[1], Meng Xianliang[1], Wang Xi[2]
[1]Air and Missile Defense College, Air Force Engineering University, Xi'an, China
[2]Xi'an Satellite Control Center, Xi'an, China

A0478 COMMON TARGETS POLARIMETRIC CALIBRATION TECHNIQUE FOR LONG BLIND RANGE RADAR

Lijia Tan[1,3], Weidong Li[1,2,3*], Rui Wang[1,2,3], Jiangtao Wang[1,3],
Muyang Li[1,3], Cheng Hu[1,2,3]
[1]The Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing100081, China
[2]The Advanced Technology Research Institute, Beijing Institute of Technology, Jinan 250300, China
[3]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing 100081, China;

A0505 RESEARCH ON DECORRELATION ANALYSIS AND IMAGE REGISTRATION METHOD FOR UAV INSAR

Zhiqiang Zhang[1], Xiangfei Nie[1], Zhijun Yang[2*], Xin Xie[3],
WenliangNie[1], HaoxuanTeng[1]
[1]School of Electronic and Information Engineer, Chongqing Three Gorges University, Chongqing, China
[2]Chongqing Innovation Center, Beijing Institute of Technology, Chongqing, China
[3]School of Information of Electronics, Beijing Institute of Technology, Beijing, China

A0515 DISTRIBUTED ARRAY RADAR SYSTEM HIGH PRECISION JAMMING CANCELLATION METHOD BASED ON SUB-SAMPLING INTERVAL TIME DELAY COMPENSATION

Ziming Zheng[1], Weiming Pu[1], Xinran Sui[1], Dezhi Tian[1],
Zhennan Liang[1*], Quanhua Liu[1,2]
[1]Key Laboratory of Electronic and Information Technology in Satellite Navigation, Beijing Institute of Technology, Beijing, China
[2]Chongqing Innovation Center, Beijing Institute of Technology, Chongqing, China

A0518 AUTO-FOCUSED LEARNING IMAGING NETWORKFOR MIMO RADAR IN THE CASE OF MODEL MISMATCH

Tao Pu[1], Weike Feng[1*], Ning Wang[2], Xiaowei Hu[1], Qun Zhang[3]
[1]Early Warning and Detection Department, Air Force Engineering University, Xi'an, China
[2]AVIC ShaanXi Huayan Aero-Instrument Co.Ltd, Xi'an, China
[3]Information and Navigation College, Air Force Engineering University, Xi'an, China

A0519 DIRECTION FINDING IN PARTLY CALIBRATED ARRAYS CONSIDERING INTER-SUBARRAY DISPLACEMENT AND SUBARRAY INCLINATION

Yihan Su, Lei Wang[*], Yimin Liu, Xiqin Wang
Department of Electronic Engineering, Tsinghua University, Beijing, China

A0543 SPACEBORNE ACTIVE POSITIONING AND ACCURACY ANALYSIS USING TDOA

Qing Dong, Jie Liu[*], Yongfei Mao
Institute of Remote Sensing Satellite of CAST, Beijing, China

A0607 A METHOD FOR IDENTIFYING SMALL FLOATING TARGET USING SEQUENTIAL INFORMATION

Hengli Yu, Guoqing Wang[*], Zheng Cao, Hao Ding
Naval Aviation University, Yantai, China,

A0663 ROCK GLACIER KINEMATIC MONITORING USING THE MT-INSAR METHOD WITH HIGH-RESOLUTION RADARSAT-2 IMAGES

Xuefei Zhang[1], Min Feng[2,3*], Tao Li[1], Xiang Zhang[1], Xiaoqing Zhou[1],
Xueguang Zhang[4] Jing Lu[1]
[1]Land Satellite Remote Sensing Application Center, Ministry of Natural Resources, Beijing, China.
[2]National Tibetan Plateau Data Center, State Key Laboratory of Tibetan Plateau Earth System, Environment and Resources (TPESER), Institute of Tibetan Plateau Research, Chinese Academy of Sciences, Beijing, China.
[3]University of Chinese Academy of Sciences, Beijing, China.
[4]Yunnan Construction Investment First Survey Design Co. Ltd., Kunming, China

A0678 INVERSE SYNTHETIC APERTURE RADAR IMAGING OF SPACE TARGET BY USING ALTERNATING DIRECTION METHOD OF MULTIPLIERS

Tianshun Xiang[1*], Hongxing Dang[1], Mingdong Yang[2], Yang Gao[1], Juanjuan Yang[1]
[1]China Academy of Space Technology, Xi'an, China
[2]Nanjing Marine Radar Institute, Nanjing, China

A069 EFFICIENT MULTI-PARAMETER ESTIMATION BASED ON THE REDUCED-DIMENSION BEAM OFVEHICLE RADAR

Runhu Liu[1], Bingxia Cao[2*], Qi Song[2], Fenggang Yan[2], Ming Jin[2], Wei Yinsheng[1]
[1]School of Electronics and Information Engineering, Harbin Institute of Technology, Harbin 150000, China
[2]Institute of Information Engineering, Harbin Institute of Technology at Weihai, Weihai 264209, China

A0715 RESEARCH ON NON-CONTACT ELECTROCARDIOGRAM MONITORING BASED ON MILLIMETER-WAVE RADAR AND RESIDUAL UNET

Binyue Cao, Meiyun zhao, Bingwen Liu, Qinwen Ping, Mi He*
School of Biomedical Engineering and Imaging Medicine, Army Medical University, Chongqing, China

A0746 TDM RADAR TARGET ANGLE AND VELOCITY ESTIMATION WITH FORWARD AND REVERSE TRANSMISSION PATTERNS

Chi Zhang[1], Ge Dong[1*], Bin Yang[2], Mingming Jin[2], Jiangyou Zhu[2]
[1]School of Aerospace Engineering, Tsinghua University, Beijing, China
[2]School of Electronic Information Engineering, Beihang University, Beijing, China

A0751 OPTIMIZATION STUDY ON THE SITING OF MAINTENANCE STATIONS FOR DISTRIBUTED RADARS BASED ON AN IMPROVED K-MEANS ALGORITHM

Dingding Qi, Yingjun Zhao, Longyue Li*, Wei Wang*, Zhonghui Jia
Air and Missile Defense College, Air Force Engineering University, Xi'an, China

A0783 LOW ANGLE ESTIMATION IN SYNTHETIC IMPULSE AND APERTURE RADAR

Mohsen Pourjoula*, Mohammad Karbasi, Mohammad Mahdi Nayebi
Department Of Electrical Engineering, Sharif University Of Technology, Tehran, Iran

A0792 FREQUENCY CODING WAVEFORM WITH NON-UNIFORM SEGMENTED LFM FOR MIMO RADARS

Zhanju Huang, Xingguo Li, Rui Guo*
College of Electronics and Communication Engineering, Shenzhen Campus of Sun Yat-sen University Shenzhen, China

A0815 WAVEFORM DESIGN FOR NETTED COLOCATED-MIMO RADAR SYSTEM

Xiang Zhang, Cai Wen*, Shu Wen
School of Information Science and Technology, Northwest University, Xi'an, China

A0842 GROUND-BASED DISTRIBUTED RADAR SYNCHRONIZATION WITH LONG COHERENCE TIME

Junjie Yan[1], Linghao Li[1*], Zegang Ding[1,2], Xinnong Ma[1], Yangkai Wei[1], Yibo Gao[1]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China;
[2]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing 100081, China;

A0881 ROBUST BEAMFORMING METHOD BASED ON FDA-MIMO RADAR

Zhixia Wu*, Shengqi Zhu, Jingwei Xu, Lan Lan, Ximin Li, Feilong Liu, Yike Wang, Qingyun Kan
National Key Lab. of Radar Signal Processing, Xidian University, Xi'an 710071, China

A0886 A SEPARABLE WISHART DISSIMILARITY IN MULTITEMPORAL POLSAR IMAGERY

Jiahui Peng[1], Carlos L opez-Mart ınez[2], Dapeng Tao[3], Jun Ni[4*]
[1]Yunnan University School of Information Science & Engineering, Kunming, China
[2]Universitat Polit`ecnica de Catalunya Signal Theory & Communication Dept., Barcelona, Spain

A0888 CLUTTER AND INTERFERENCE COGNITIVE SUPPRESSION BASED ON TRANSMITTER OPTIMIZATION

Cong Liu[1], Yifeng Wu[1*], Member, IEEE, Xiaobo Deng[2], Lei Zhang[1],
Member, IEEE,Yulai Cong[1], Yue Zhang[1]
[1]School of Electronics and Communication Engineering, Sun Yat-sen University, Shenzhen 518107, China
[2]AVIC Leihua Electronic Technology Research Institute, Wuxi 214063, China

A0889 MAINLOBE DECEPTIVE JAMMER SUPPRESSION BASED ON QUADRATIC PULSE CODING IN FDA-MIMO RADAR

Yiqun Zhang[1], Guisheng Liao[1], Jingwei Xu[1*], Lan Lan[1], Zhixia Wu[1], Siwei Bi[2]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, China
[2]Beijing Electro-Mechanical Engineering Institute, Beijing, China

A0933 REMOTE SENSING INVERSION OF GRASS MOWING BASED ON TIME SERIES SAR SATELLITE IMAGES

Bo Zhang[1,2], Xiaolong Liu[1,2*], Yuejuan Chen[1,2], Pingping Huang[1,2]
[1]College of Information Engineering, Inner Mongolia University of Technology, Hohhot 010080, China
[2]Inner Mongolia Key Laboratory of Radar Technology and Application, Hohhot 010051, China

A0950 A PHASE SYNCHRONIZATION DEVICE AND METHOD FOR DISTRIBUTED RECEIVING RADAR BASED ON ORTHOGONAL SIGNALS

Weiping Li[1], Weichao Chen[2*]
[1]Xi'an Institute of Space Radio Technology, Xi'an, China
[2]Xi'an University of Posts & Telecommunications, Xi'an, China

A0956 A PHASE FILTERING METHOD FOR AIRBORNE STRIPMAP SAR BASED ON PIECEWISE POLYNOMIALS AND AKAIKE INFORMATION CRITERION

Xing Chen, Chengyi Tu, Zehua Zhang, Zhen Dong*, Zhihua He
College of Electronic Science and Engineering, National University of Defense Technology (NUDT), Changsha,410073, China

A0964 DEVELOPMENT OF A DRONE-BORNE GPR SYSTEM FOR ICE THICKNESS DETECTION

Hai Liu*, YunLong Lian, Xu Meng
Guangzhou University, Guangzhou, China

A0969 DEFORMATION MONITORING OF DATONG COALFIELD BASED ON LUTAN-1

Yanan Ji[1,2*], Xiang Zhang[1], Tao Li[2]
[1]Jiangsu Key Laboratory of Resources and Environmental Information Engineering, China University of Mining and Technology, Xuzhou 221116, China;
[2]Land Satellite Remote Sensing Application Center, Ministry of Natural Resources, Beijing 100048, China;

A0973 ORBIT DETERMINATION ERROR ANALYSIS AND COMPENSATION FOR MULTI-STATIC GEO SAR IMAGING

Yan Liu[1], Wentao Zhang[2], Zhiyang Chen[1,2*], Xicho Dong[1,3]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan 250300, China
[3]Beijing Institute of Technology Chongqing Innovation Center, Chongqing 401120, China

A0975 JOINT TRANSMITTER/RECEIVER PAIR SELECTION AND POWER ALLOCATION STRATEGY FOR MULTI-TARGET TRACKING IN NETTED RADAR SYSTEM

Jingjing Guo[1], Haihong Tao[2*]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, China
[2]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, China

A0986 VELOCITY ESTIMATION OF DRFM JAMMING SOURCE BASED ON DOPPLER DIFFERENCES IN DISTRIBUTED ARRAY RADAR

Weiming Pu[1], Ziming Zheng[1], Dezhi Tian[1], Zhennan Liang[1*], Quanhua Liu[1,2]
[1]Key Laboratory of Electronic and Information Technology in Satellite Navigation, Beijing Institute of Technology, Beijing, China
[2]Chongging Innovation Center, Beijing Institute of Technology, Chongqing, China

A0995 A RECEIVING COHERENCE METHOD OF AIRBORNE DISTRIBUTED RADAR BASED ON JOINT SEARCH OF STRONG SCATTERING POINTS

Kaixiang Zhang[1], Pufeng He[1], Zhennan Liang[1*], Quanhua Liu[1,2]
[1]Key Laboratory of Electronic and Information Technology in Satellite Navigation, Ministry of Education, Beijing Institute of Technology, Beijing 100081, China
[2]Chongqing Innovation Center, Beijing Institute of Technology, Chongqing, China

A206 **MULTI-MODEL KALMANNET FOR MANEUVERING TARGET TRACKING**

Xuehan Han, Ling Ding, Cheng Peng, WenWen Zeng,
Xin Zhang, Zheng Wen, LeZheng*
School of Information and Electronics, Beijing Institute of Technology, Beijing, China

A893 **FLEXIBLE MULTI-GENERATOR MODEL WITH FUSED SPATIOTEMPORAL GRAPH FOR TRAJECTORY PREDICTION**

Peiyuan Zhu[1], Fengxia Han[2], Hao Deng[2*]
[1]School of Electronic and Information Engineering, Tongji University, Shanghai, China
[2]School of Software Engineering, Tongji University, Shanghai, China

A959 **A STUDY OF GHOSTS GENERATED BY TANGENTIAL REFLECTORS IN TRAFFIC RADAR**

Yunlei Fu, Fu Yang, Baixiao Chen*
National Key Laboratory of Radar Singal Processing, Xidian University, Xi'an, China

C0010 **A RANGE AND RADIAL VELOCITY MEASUREMENT METHOD BASED ON UP-CHIRP AND DOWN-CHIRP LFM SIGNAL IN PULSED RADAR**

Hao Chen[1*], Yi Lei[2]
[1]Key Lab of Aperture Array and Space Application, East China Research Institute of Electronic Engineering, Hefei, China
[2]School of Computer Science and Information Engineering, Hefei University of Technology, Hefei, China

C0041 **BINARY CODE DESIGN FOR PULSE-DOPPLERRADAR PERFORMANCE ENHANCEMENT VIASLOW-TIME MODULATION**

Ping Huang, Wenjun Wu, Jiong Xiao, Bo Tang*
College of Electronic Engineering, National University of Defense Technology, Hefei, China

C0060 **WIDEBAND MIMO RADAR TRANSMIT BEAMPATTERN DESIGN VIA MANIFOLD OPTIMIZATION EMBEDDING WITH MOMENTUM INFORMATION**

Laichun Li[1,2], Jinfeng Hu[1,2], Kai Zhong[1,2],
Dongxu An[1,2], WeijieXiong[1,2]
[1]Yangtze Delta Region Institute (Quzhou), University of Electronic Science and Technology of China, Quzhou, China
[2]Institute of Information and Communication Engineering

C0153 OPTIMIZATION METHOD OF INTER-PULSE PHASE AGILITY WAVEFORM

Zihao Liu[1,2], Lixiang Ren[1,2*], Huayu Fan[1,3], Quanhua Liu[1,4], Erke Mao[1,2]

[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China

[2]Key Laboratory of Electronic and Information Technology in Satellite Navigation (Beijing Institute of Technology), Ministry of Education, Beijing 100081, China

[3]Yangtze Delta Region Academy, Beijing Institute of Technology, Jiaxing 314033, China

[4]Chongqing Innovation Centre, Beijing Institute of Technology, Chongqing 401135, China

C0164 JOINT TRANSMIT SIGNAL AND RECEIVING FILTER DESIGNIN BARRAGE JAMMING WITH OPTIMIZED RECEIVED DYNAMIC RANGE

Yuan Cheng[1,2*] , Xiuci Mo[1], Ming Gu[1], Jianfeng Lv[1], Jun Tang[2]

[1]AVIC Leihua Electronic Technology Research Institute, 214083, Wuxi, China

[2] Tsinghua University, Department of Electronic Engineering, 100084, Beijing, China

C0201 INTEGRATED RADAR AND COMMUNICATION WAVEFORM DESIGN BASED ON SPACEBORNE ONE-BIT SAR SYSTEM

Xiaolu Tian[1], Peng Xiao[2*], Pengyu Ma[2], Yanan You[3], Wei Guo[4] and Cheng Wang[5]

[1]Space Star Technology Co., Ltd., Beijing, China

[2]College of Information Engineering, Capital Normal University, Beijing, China

[3]School of Artificial Intelligence, Beijing University of Posts and Telecommunications, Beijing, China

[4]School of Aerospace Science and Technology, Xidian University, Xi'an, China

[5]Qian Xuesen Laboratory of Space Technology, China Academy of Space Technology, Beijing, China

C0263 ROBUST WAVEFORM DESIGN FOR MIMO RADARDIRECTION FINDING

Da Li, Bo Tang*, Lei Xue

College of Electronic Engineering, National University of Defense Technology, Hefei, China

C0292 AN APPLIED OFDM CHIRP WAVEFORM DESIGNSCHEME FOR RADAR COINCIDENCE IMAGING

Biao Xue[1], Fan Shen[2], Gong Zhang,[1*], Qijun Dai[1], Su Liu[3]

[1]Key Laboratory of Radar Imaging and Microwave Photonics, Ministry of Education, No. 29, General Avenue, Nanjing, China

[2]Nanjing Marine Radar Institute, No. 30, Changqing Street, Nanjing, China

[3]School of Software Engineering Chongqing University of Posts and Telecommunications Chongqing 400065, China

C0295 WAVEFORM DESIGN FOR PULSE RADAR BASED ON INTERRUPTED CODING MODULATION

Xiaobin Liu*, Qihua Wu, Zhaoyu Gu, Zhenyu Liu, Feng Zhao, Shunping Xiao
The State Key Laboratory of Complex Electromagnetic Environment Effects on Electronics and Information System, College of Electronic Science and Technology, National University of Defense Technology, ChangSha, China

C0308 COUNTER-RECONNAISSANCE PERFORMANCE ANALYSIS OF AMPLITUDE CODED MODULATION RADAR WAVEFORM

Zhenyu Liu, Xiaobin Liu*, Qihua Wu, Feng Zhao, Zhiming Xu, Shunping Xiao
The State Key Laboratory of Complex Electromagnetic Environment Effects on Electronics and Information System, College of Electronic Science and Technology, National University of Defense Technology, ChangSha, China

C0402 LOW-COMPLEXITY ALGORITHM FOR MASSIVE MIMO RADAR JOINT TRANSMIT WAVEFORM AND RECEIVE FILTER DESIGN

Minglong Deng[1*], Jing He[1], Qiu Yang[123], Xia Bijun[1], Ding Huai[1]
[1]National Key Laboratory of Electromagnetic Space Security, Chengdu, China
[2]School of Information and Communication Engineering, UESTC, Chengdu, China
[3]Unit 95786 of the PLA, Chengdu, China

C0442 INTEGRATED WAVEFORM DESIGN FOR MIMO DUAL FUNCTION RADAR-COMMUNICATION SYSTEM VIA MM-ADMM METHOD

Liangting Zhan[1], Jing Yang[1*], Ning Wang[1], Xianxiang Yu[2], Changan Shi[3]
[1]School of Electrical and Information Engineering, Zhengzhou University, Zhengzhou, China
[2]School of Information and Communication Engineering, University of Electronic Science and Technology of China, Chengdu, China
[3]Unit 63891 of the People's Liberation Army, Luoyang, China

C0472 STCA RADAR MULTI-DIMENSIONAL AMBIGUITY FUNCTION CHARACTERISTICS OPTIMIZATION

Qikai Wang, Shengqi Zhu*, Xiongpeng He*, Lan Lan[1], Ximin Li, Hanghang Wang
National Key Lab of Radar Signal Processing, Xidian University, No.2 South Taibai Road, 710071 Xi'an, China

C0487 RESEARCH ON SEGMENTED RECONSTRUCTION MULTIPLE FALSE TARGETS SUPPRESSION JAMMING TECHNOLOGY BASED ON IMPROVED QUANTUM-REAL GENETIC ALGORITHM

Qingping Wang[1,2], Yanqi Wang[1,2*], Chao Wang[1,2], Zhenghui Gong[1], Naichang Yuan[1,2]
[1]College of Electronic Science and Technology, National University of Defense Technology, Changsha, China
[2]State Key Laboratory of Complex Electromagnetic Environment Effects on Electronics and Information System, National University of Defense Technology, Changsha, China

C0497 JOINT OPTIMIZATION ALGORITHM FOR INTEGRATED TRANSMISSION AND RECEPTION OF OFDM DETECTION AND COMMUNICATION ON W-ADMM

Wenshuai Ji[1], Yuxiao Song[1], Hangyu Lin[1] Biao Tian[1*], Jingyang Xie[1]
[1]School of Electronics and Communication Engineering, Shenzhen Campus of Sun Yat-sen University, Shenzhen, China

C0516 DESIGN OF NON-UNIFORM FREQUENCY-PHASE HYBRID MODULATION RADAR WAVEFORM AND SEGMENTED COMPLEMENTARY MISMATCH FILTERING

Yuanshuai Li[1], Hao Zhang[1], Hongtu Shi[2], Shaoqiang Chang[13], Yuxiang Chen[4*]
[1]Key Laboratory of Electronic and Information Technology in Satellite Navigation, Ministry of Education, Beijing Institute of Technology, 100081, Beijing, China
[2]Unit 93147 of The PLA, 610051, Chengdu, China
[3]Chongqing Innovation Center, Beijing Institute of Technology, 401120, Chongqing, China
[4]Beijing Racobit Electronic Information Technology Co., Ltd., 100081, Beijing, China

C0566 EXTENDED RANGE DETECTION OF SEA-SURFACE TARGET BASED ON PRI-AGILE AND FREQUENCY- AGILE WAVEFORM

Yaxin Ji[12*], Yong Li[1], Huangrong Zhou[2]
[1]School of Electronics and Information, Northwestern Polytechnical University, Xi'an, China
[2]AVIC Leihua Electronic Technology Research Institute, Wuxi , China

C0613 ON CYCLIC FREQUENCY SIDELOBE AND RANGESIDELOBE REDUCTION FOR LPI RADARWAVEFORM

Yujie Wang[1], Qiao Shi[2*], Tao Yu[1], Yu Zhou[1], Zhengchun Zhou[2]
[1]The School of Mathematics, Southwest Jiaotong University, Chengdu, China
[2]The School of Information Science and Technology, Southwest Jiaotong University, Chengdu, China

C0615 SAR-COMMUNICATION INTEGRATION BASED ONFBMC-OQAM WAVEFORMS

Lingjun Dai*, Jie Wang, Jincheng Li, Meng Wang, Jiajia Fu
Nanjing University of Information Science & Technology, Nanjing, China

C0632 OPTIMIZATION OF RADAR WAVEFORM BASEDON THE WEIGHTED AMBIGUITY FUNCTION BEHAVIOR

Xinhai Wang[1], Hu Song[1], Feng Xiong[1*], Zhenyu Wu[1], Su Liu[2], Qijun Dai[3]
[1]Nanjing Marine Radar Institute, Nanjing, China
[2]School of Software Engineering, Chongqing University of Posts and Telecommunications Chongqing, China
[3]Key Laboratory of Radar Imaging and Microwave Photonics, Ministry of Education, Nanjing University of Aeronautics and Astronautics, Nanjing, China

C0698 CHARACTERISTICS ANALYSIS OF STEPPED FREQUENCY CHIRP SIGNAL USING UNIFORM INTERRUPTED MODULATION

Tiehua Zhao, Qihua Wu*, Zhiming Xu, Feng Zhao and Shunping Xiao
The State Key Laboratory of Complex Electromagnetic Environment Effects on Electronics and Information System College of Electronic Science and Technology, National University of Defense Technology, Changsha, China

C0726 A FORMAL STUDY OF THE DOPPLER TOLERANCE OF HIGHFREEDOM PARAMETERIZED FM (HFPFM) CODE

Jingkai Huang, Guodong Jin*, Xifeng Zhang, Yu Wang, Daiyin Zhu

C0786 INTER-PULSE CARRIER FREQUENCY AGILE DESIGN FOR COGNITIVE RADAR

Yin Li[1], Tao Fan[1], Xianxiang Yu[1], Lan Lan[2], Huai Ding[3*], Guolong Cui[1]
[1]School of Information and Communication Engineering, University of Electronic Science and Technology of China, Chengdu, the People's Republic of China
[2]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, the People's Republic of China
[3]The 29th Research Institute of China Electronics Technology Group Corporation, Chengdu, the People's Republic of China

C0798 DESIGN OF MISMATCHED FILTER WITH GOOD DOPPLER TOLERANCE VIA MAJORIZATION MINIMIZATION

Hao Zhang[1], Yuanshuai Li[1], Shaoqiang Chang[1,2], Yuanyuan Song[1*]
[1]Key Laboratory of Electronic and Information Technology in Satellite Navigation, Ministry of Education, Beijing Institute of Technology, 100081, Beijing, China
[2]Chongqing Innovation Center, Beijing Institute of Technology, 401120, Chongqing, China

C0813 UNIMODULAR SEQUENCE SET DESIGN WITH LOWWEIGHTED CORRELATION PROPERTIES

Yuhang Gao[1,2], Lixiang Ren[1,2*], Huayu Fan[1,3], Quanhua Liu[1,4], Erke Mao[1,2]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China
[2]Key Laboratory of Electronic and Information Technology in Satellite Navigation (Beijing Institute of Technology), Ministry of Education, Beijing 100081, China
[3]Yangtze Delta Region Academy of Beijing Institute of Technology， Jiaxing, 314033, China
[4]Chongqing Innovation Center，Beijing Institute of Technology, Chongqing, 401120, China

C0849 DESIGN OF UNIMODULAR SEQUENCES WITHGOOD DOPPLER TOLERANCE WITH MIMO RADAR

Jiawei Qi, Lan Lan*, Guisheng Liao, Jingwei Xu, Shengqi Zhu
National Key Laboratory of Radar Signal Processing, Xidian University, No.2 South Taibai Road, 710071, Xi’an, China

Poster Session 6: Advanced Signal Processing Algorithms

Time: 15: 00 - 16: 00, December 5, 2023
Place: Gaoke Junior Ballroon 2
Chair: Dr. Yupei Wang, Beijing Institute of Technology, China
Dr. Weidong Hu, Beijing Institute of Technology, China

C0001 NOISE-ASSISTED MULTIVARIATESUCCESSIVE VARIATIONAL MODE DECOMPOSITION

Lihong Qiao[1], Zehua Wang[1],Yuhang Shi[1]
[1]Department of Computer Science and Technology, Chongqing University of Posts and Telecommunications Chongqing, China

C0002 RANGE-AMBIGUITY-FREE TARGET LOCALIZATION USING CHIRPED-FDA

Mengqi Liu[1], Shengheng Liu[1,2*], Hao Chi Zhang[1], Le Peng Zhang[1], Yahui Ma[3]
[1]School of Information Science and Engineering, Southeast University, Nanjing 210096, China
[2]Purple Mountain Laboratories, Nanjing 211111, China
[3]China Academy of Electronics and Information Technology, Beijing 100041, China

C0031 SELECTION MATRIX DESIGN FOR SPARSE ARRAY SIGNAL PROCESSING

Yule Zhang[1,2], Hao Zhou[2*], Guoping Hu[2], Chenghong Zhan[1,2], Shuhan Guo[1,2]
[1]Graduate College, Air Force Engineering University, Xi'an, China
[2]Air and Missile Defense College, Air Force Engineering University, Xi'an, China

C0040 LEARNING-EMPOWERED FREQUENCY-DOMAIN SINGLE-SNAPSHOT DOA ESTIMATION IN FMCW AUTOMOTIVE RADARS

Mengfei Li[1], Shengheng Liu[1,2*], Lei Li[3], Yixin Jin[1], Yongming Huang[1,2]
[1]School of Information Science and Engineering, Southeast University, Nanjing 210096, China
[2]Purple Mountain Laboratories, Nanjing 211111, China
[3]Hella Shanghai Electronics Co., Ltd., Shanghai 201201, China

C0044 ANGLE SUPER-RESOLUTION BASED ON IAA ALGORITHM OF ARPR

Rui Liu[12*], Huangrong Zhou[2], Jindong Zhang[1], Fan Ding[2]
[1]NUAA College of Electronic and Information engineering, Nanjing Jiangsu in China
[2]AVIC Leihua Electronic Technology Research Institute, Wuxi Jiangsu in China

C0045 AN ALGORITHM FOR SEPARATING MOVING TARGETS FROM GROUND CLUTTER BASED ON BEAM PATTERN AMPLITUDE

Xiaoyu Qin, Tao Li*, Bin Deng, Jun Yi, Hongqiang Wang
College of Electronic Science, National University of Defense Technology, Changsha, China

C0058 BIOLOGICALLY INSPIRED VIRTUAL APERTURE EXPANSION METHOD FOR SMALL APERTURE MULTI-ANTENNA ARRAYS

HongBo Li[1], AiJun Liu[2*], Qiang Yang[1], Changjun Yu[2], Zhe Lyu[2]
[1]School of Information and Electrical, Harbin Institute of Technology, Harbin, China
[2]School of Information and Electrical, Harbin Institute of Technology (Weihai), Weihai, China

C0082 CALIBRATION METHOD FOR GAIN-PHASE ERRORS OF HFSWR BASED ON SEA CLUTTER

HongBo Li[1], AiJun Liu[2*], Qiang Yang[1], Changjun Yu[2], Zhe Lyu[2]
[1]School of Information and Electrical, Harbin Institute of Technology, Harbin, China
[2]School of Information and Electrical, Harbin Institute of Technology (Weihai), Weihai, China

C0161 COMPLEX CLUTTER SUPPRESSION ALGORITHM BASED ON SUBBAND PROCESSING FOR PASSIVE BISTATIC RADAR

Luo Zuo[1], Congsi Wang[1*], Ziqian Huang[2], Yuefei Yan[1], Wenjuan Wang[1], Jie Tan[1], MengWang[3], Zhihai Wang[4], Haitao Shi[4], Yan Wang[5]
[1]Guangzhou Institute of technology，Xidian University, 510555, Guangdong, China
[2]National Laboratory of Radar Signal Processing, Xidian University, 710071, Xi'an, China
[3]Research Institute of Shaanxi Huanghe Group Co., Ltd., 710043, Xi'an, China
[4]CETC No.38 Research Institute, Hefei, 230088, China
[5]School of Information and Control Engineering, Xi'an University of Architecture and Technology, Xi'an,710055, China.

C0193 ESTIMATION METHOD OF DIRECTION OF DEPARTURE VIA CONSTANT MODULUS CONSTRAINT ON MULTICARRIER SIGNAL

Ya Bin Li[1], Jing Yu Zhai[1], Fei Song[1], Chang Xiong Xia[1], Yi Peng Liu[1], Qun Wan[1*]
[1]School of Information and Communication Engineering, University of Electronic Science and Technology of China, Chengdu, China

C0194 AN ARBITRARY ARRAY PASSIVE LOCALIZATION ALGORITHM USING NEAR-FIELD EFFECTS

Xie Wei[1], Zhu Jiang[2], Qing Haobo[2], Zhao Chaoyue[2]
[1]University of Electronic Science and Technology of China, Chengdu, China
[2]National Information Control Laboratory, Chengdu, China

C0248 TRANSLATIONAL ACCELERATION COMPENSATION OF SPACE TARGET VIA POLYNOMIAL FITTING

Jianjun Chen[*], Jianlin Wu, Huijuan Xu, Tingtao Cui, Jie Gao, Sheng Luo
Uint 63620, Lanzhou, China

C0296 ADAPTIVE DOPPLER PROCESSING FOR FOLDED CLUTTER MITIGATION OF INTER-PULSE PHASE-CODED WAVEFORM

Dehua Zhao[*], Xiaojian Xu, Chunxiao Wu, Jinli Meng, Miaohong Cai, Liang Zhang
Nanjing Research Institute of Electronics Technology, Nanjing, China

C0301 JOINT CHANNEL ESTIMATION AND ZERO-DOPPLER CLUTTER SUPPRESSION FOR PASSIVE RADAR UNDER MULTIPLICATIVE DISTORTIONS VIA REGULARIZED ECA

Yijia Guo[1], Jun Geng[1*], Siqi Liu[1]
[1]School of Electronics and Information Engineering, Harbin Institute of Technology, Harbin, China

C0317 CNN-GRU–BASED SINGLE-CHANNEL BLIND SOURCE SEPARATION OF COMPLEX SIGNALS

Weilin Luo[1], Xiaobai Li[1*], Hao Li[1], Hongbin Jin[2], Songzi Hao[1], Ruijuan Yang[1]
[1]Department of Intelligence, Air Force Early Warning Academy, Wuhan 430019, People's Republic of China
[2]Department of Air and space, Air Force Early Warning Academy, Wuhan 430019, People's Republic of China

C0321 COMPUTATIONALLY EFFICIENT COHERENT INTEGRATION ALGORITHM BASED ON DBO FOR WEAK MANEUVERING TARGET

Tingting Duan[1], Xiaoli Yi[1], Jinzhi Xiang[1*], Haoran Yang[1], Jiacheng Yu[1], Mo Su'e[2]
[1]Beijing Institute of Radio Measurement, Beijing, China
[2]National University of Defense Technology, Hunan, China

C0336 JOINT RANGE AND ANGLE ESTIMATION WITH COPRIME FDA-MIMO RADAR

Xiaoxia Duan[1], Shengqi Zhu[1*], Lan Lan[1*], Ximin Li, Yuxiang Gao, Yixuan Guo
[1]National Key Lab of Radar Signal Processing, Xidian University, No.2 South Taibai Road, 710071 Xi'an, China

C0343 AN APPROACH FOR MULTI-BEAM ANGLE MEASUREMENT AT SUBARRAY LEVEL

Jiaolong Shan[1*], Chengjun Lu[1], MingMing Guo[2]
[1]AVIC Leihua Electronic Technology Research Institute, Wuxi, China
[2]Nanjing University of Aeronautics and Astronautics, Nanjing, China

C0344 A SINGLE-FRAME VELOCITY DISAMBIGUATION ALGORITHM FOR FMCW RADAR WITH HIGH-PRECISION RANGING

Zhengguang Xu[1*], Yaling Chen[1], ShanYong Wei[1], Peng Zhang[2]
[1]School of Electronic Information and Communications, Huazhong University of Science and Technology, Wuhan 430074, China
[2]School of Geodesy and Geomatics, Wuhan University, Wuhan 430074, China

C0356 AN ADMM-BASED LOW-COMPLEXITY ALGORITHM FOR ATOMIC NORM MINIMIZATION IN DOA ESTIMATION

Teng Ma[1], Minglei Yang[1*], Hangui Zhu[2], Dingsen Zhou[1]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, China
[2]School of electronic information, Wuhan University, Wuhan, China

C0374 FDA RADAR TARGET DETECTION UNDER THE ARRAY PHASE ERRORS

Libing Huang[1], Shunsheng Zhang[2*], Siyao Xiao[2], Wen-Qin Wang[1]
[1]School of Information and Communication Engineering, University of Electronic Science and Technology of China, Chengdu 611731, China
[2]Research Institute of Electronic Science and Technology, University of Electronic Science and Technology of China, Chengdu 611731, China

C0387 A MODIFIED ALTITUDE ESTIMATIONMETHOD FOR AIRBORNE SAR BY MULTI-CHANNEL DOPPLER SPECTRUMSHARPENING

Hong Hu*, Fengsheng Huang, Rengli Liu, Xuelian Zhong
Key Laboratory of Aperture Array and Space Application, No. 38 Research Institute, China Electronics Technology Group Corporation, Hefei, China

C0391 A HIGH-RESOLUTION IMAGING ALGORITHM FOR SYNTHETIC APERTURE INTERFEROMETRIC RADIOMETRY BASED ON UNSUPERVISED PULSE-COUPLED NEURAL NETWORKS

Xinpeng Chen, Dong Zhu*, Fei Hu
School of Electronic Information and Communications, Huazhong University of Science and Technology, Wuhan, China

C0424 AN OPTICAL TO SAR TRANSFORMATION METHOD FOR SAR IMAGE AUGMENTATION

Xiaokun Sun[1], Xinwei Li[2], Deliang Xiang[3], Rui Feng[4], Canbin Hu[5*]
[12345]College of Information Science and Technology, Beijing University of Chemical Technology, Beijing, China

C0427 A NOVEL GROUND-TRACK FMCW SAR IMAGING METHOD BASED ON MODIFIED WAVENUMBER DOMAIN ALGORITHM

Qing Ling[1], Jingtao Ma[2], Penghui Huang[1*], Peili Xi[3], Chanjuan Zhao[4], Qing Lu[3],Yan Jiang[3], Haitao Wang[3], Xingzhao Liu[1]
[1]School of Electronic Information and Electrical Engineering, Shanghai Jiao Tong University, Shanghai, China
[2]Innovation Academy for Microsatellites of CAS, Shanghai, China
[3]Shanghai Institute of Satellite Engineering, Shanghai, China
[4]Shanghai Aerospace Electronics Technology Institute, Shanghai, China

C0462 DIRECT POSITIONING ALGORITHM BASED ON FREQUENCY DIVERSE MIMO RADAR

Ziheng Zhao, Bo Wang, Qi Liu, Yu Zhou, Rui Guo*
School of Electronics and Communication Engineering, Sun Yat-sen University, Shenzhen, China

C0471 NEURAL NETWORK-BASED SELF-INTERFERENCE CANCELLATION METHOD FOR IN-BAND FULL-DUPLEX SYSTEM

HongYu Zhu[1], WeiDong Hu[2], Chao Wang[1*], Yuan Ye[3], NaiChang Yuan[1]
[1]College of Electronic Science and Technology, National University of Defense Technology, Changsha, China
[2]National Key Laboratory of Automatic Target Recognition, National University of Defense Technology, Changsha, China
[3]Hunan Institute of Advanced Technology, Changsha, China

C0506 ISAR REFOCUSING ALGORITHM FOR MANEUVERING SHIP TARGETS SAR DATA BASED ON PARAMETRIC SPARSE BAYESIAN LEARNING

Shichao Xiong[1], Haobo Wang[1], Jiacheng Ni[1*], Hongwei Zhang[1], Benyuan Lv[1], HangYuan[1], Ying Luo[1], Qun Zhang[1,2]
[1]Information and Navigation College, Air Force Engineering University, Xi'an, China
[2]Key Laboratory of Wave Scattering and Remote Sensing Information, Fudan University, Shanghai, China

C0513 IMPROVED PROPAGATOR METHOD FOR RANGE AND ANGLE ESTIMATION WITH FDA-MIMO RADAR

Feilong Liu[1*], Shengqi Zhu[1*], Jingwei Xu[1], Ximin Li[1], Lan Lan[1], Zhixia Wu[1]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Shaanxi, China

C0529 A NEW ESTIMATOR FOR THE NUMBER OF HIGH-DIMENSIONAL SIGNALS USING RATIO OF HIGHER-ORDER MOMENTS

Lewen Zhang[1], Yao Rong[1*], Mengjiao Tang[1], Xiaolin Du[2], and Fan Li[3]
[1]Yunnan Key Laboratory of Statistical Modeling and Data Analysis, Yunnan University, Kunming, China
[2]School of Computer and Control Engineering, Yantai University, Yantai, China
[3]CAAC Key Laboratory of Flight Techniques and Flight Safety, Civil Aviation Flight University of China, Guanghan, China

C0531 RESOLVING RANGE AMBIGUITY VIA TRANSMIT BEAMFORMING WITH TIME DIVERSITY ARRAY RADAR

Kun Yu[1], Shengqi Zhu[1*], Lan Lan[1], Biao Yang[1], Jingjing Zhu[1]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, China

C0549 FAST BLOCK SPARSE BAYESIAN LEARNING FOR RECOVERY OF BLOCK-SPARSE SIGNAL

Zichen Ning, Juan Zhao[*], Xia Bai, Tao Shan
School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China

C0553 SYNTHESIS OF SPARSE LINEAR ARRAYS WITH TENSOR DECOMPOSITION

Yangjingzhi Zhuang[1], Yuxin Xu[1], Xuejing Zhang[1*], Zishu He[1],
Ziwei Wang[2]，HongfeiYang[3]，Lili He[3]
[1]University of Electronic Science and Technology of China, Chengdu, China
[2]Beijing institute of Control and Electronics Technology，Beijing，China
[3]Jiangnan Institute of Mechanical and Electrical Design，Guiyang，China

C0556 COHERENT INTEGRATION FOR PASSIVE RADAR BASED ON SPARSE REPRESENTATION AND ATOMIC NORM MINIMIZATION

Xinying Fu, Xia Bai*, Juan Zhao, Tao Shan
School of Information and Electronics, Beijing Institute of Technology, Beijing, China

C0558 STEEL REINFORCEMENT POLARIZATION CHARACTERISTIC CALIBRATION METHOD BASED ON ALFORD ROTATION

Shubo Liang[1], Xiaopeng Yang[1], Conglong Guo[1], Yanjie Cao[1], Tian Lan[2*]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Chongqing Innovation Center, Beijing Institute of Technology, Chongqing, China

C0562 TARGET POSITIONING WITH THE MS-MU-MIMO-OFDM SIGNAL BASED ON THE UNITARY APPROXIMATE MESSAGE PASSING

Xiaoyong Lyu[1*], Dongfang Luo[1], Baojin Liu[1], and Wenbing Fan[1]
[1]School of Electrical and Information Engineering, Zhengzhou University, Zhengzhou, 450001, China

C0572 MARITIME RADAR WEAK TARGET DETECTION AGAINST WEATHER CLUTTER BASED ON FCOS NETWORK AND DYNAMIC RELU

Yulei Qian[1*], Chun Ding[1], Ying Lu[1], Haocheng Yang[1], Huaxing Kuang[1],
Yuanpeng Liu[1],Yimian Dai[2]
[1]Nanjing Marine Radar Institute, Nanjing, China
[2]College of Computer Science and Engineering, Nanjing University of Science and Technology, Nanjing, China

C0586 COHERENT PROCESSING METHOD FOR FREQUENCY AGILE RADAR

Yang Li[123], Xiangyu Wang[13], Nan Liu[123], Zaiyang Wang[13], Xueyao Hu[123*]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Beijing Institute of Technology Chongqing Innovation Center, Chongqing, China
[3]Electromagnetic Sensing Research Center of CEMEE State Key Laboratory, Beijing, China

C0616 SPECTRAL–SPATIAL ATTENTION FUSION TRANSFORMER FOR HYPERSPECTRAL IMAGE CLASSIFICATION

Xiangyu Ji[1], Jingpeng Gao[1], Geng Chen[1*], Lu Gao[2]
[1]College of Information and Communication Engineering, Harbin Engineering University, Harbin, China
[2]National Key Laboratory of Science and Technology on Test Physics and Numerical Mathematics, Beijing Institute of Space Long March Vehicle, Beijing, China

C0624 ANECHOIC CHAMBER EQUIVALENT SIMULATION METHOD FOR INTERMITTENT TRANSCEIVER ECHO BASED ON SPACE TARGET ELECTROMAGNETIC SCATTERING DATA

Zhenyu Qiao, Xiaobin Liu, Ailun Xie, Qihua Wu, Feng Zhao, Ling Wang*
The State Key Laboratory of Complex Electromagnetic Environment Effects on Electronics and Information System, College of Electronic Science and Technology, National University of Defense Technology, Changsha, China

C0631 MoPPE: A MOMENT-PERCENTILE PARETO ESTIMATOR FOR SEA CLUTTER

Jianrong Zhang[1*], Haocheng Yang[1], Yuanpeng Liu[1], Yulei Qian[1], Qi Wang[1], Huaxing Kuang[1]
[1]Nanjing Marine Radar Institute, Nanjing, China

C0673 HIGH RESOLUTION ISAR IMAGING BASED ON 2-D FMFSBL-NET

Xinyi Tang[1*], Yujie Zhang[1], Xueru Bai[1]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, China

C0682 KULLBACK-LEIBLER DIVERGENCE BASED ANGLE ESTIMATION IN LOW SNR

Huageng Liu[1], Xinliang Chen[2*]
[1]School of Mathematics and Statistics, Beijing Institute of Technology, Beijing, China
[2]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing, China

C0683 GRIDLESS DOA ESTIMATION FOR AUTOMOTIVE RADARS WITH VARIOUS ARRAY GEOMETRIES: THE NON-VANDERMONDE ATOMIC SOFT THRESHOLDING APPROACH

Silin Gao[1,2,3], Muhan Wang[1,2,3,4,5], Zhe Zhang[1,4,5*] , Bingchen Zhang[1,2,3], Yirong Wu[1,2,3]
[1]Aerospace Information Research Institute, Chinese Academy of Sciences, Beijing 100094, China
[2]Key Laboratory of Technology in Geo-spatial Information Processing and Application System, Chinese Academy of Sciences, Beijing 100190, China
[3]School of Electronic, Electrical and Communication Engineering, University of Chinese Academy of Sciences, Beijing 100049, China
[4]Key Laboratory of Intelligent Aerospace Big Data Application Technology, Suzhou 215123, China
[5]Suzhou Aerospace Information Research Institute, Suzhou 215123, China

C0685 A ROBUST HIGH-RESOLUTION SPARSE ISAR IMAGING METHOD BASED ON DEEP UNFOLDING NETWORK

Yuhang Tian[1*], Yue Wang[1], Xueru Bai[1]
[1]National Key Laboratory of Radar Signal Processing, Xi'an, China

C0686 MULTI-SOURCE JOINT IMAGING METHOD FOR SHIPBORNE GNSS-S RADAR

Wenning Gao[1,2], Fuzhan Yue[1,2*], Changhu Xue[1,2], Zhilong Zhao[1,2], Zhenghuan Xia[1,2]
[1]State Key Laboratory of Space-Earth Integrated Information Technology, Beijing, China
[2]Beijing Institute of Satellite Information Engineering, Beijing, China

C0687 PASSIVE RADAR DIRECT WAVE SIGNAL RECONSTRUCTION METHOD BASED ON FRACTIONAL DOMAIN BLIND SOURCE SEPARATION

Jiangyun Deng[1], Zhi Sun[1*], Haonan Zhang[1], Xingtao Jiang[1],
Zihao Xiao[1], Xiaolong Li[1], Guolong Cui[1]
School of Information and Communication Engineering, University of Electronic Science and Technology of China, Chengdu, the People's Republic of China

C0704 AN INCREMENTAL RANGE AND UNAMBIGUOUS VELOCITY ESTIMATION APPROACH WITH FDAMIMO RADAR

Yanxing Wang[1], Shengqi Zhu[1*], Lan Lan[1*], Ximin Li[1], Feilong Liu[1], Zhuochen Chen[1]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xian, China

C0723 FASTICA BASED SINGLE-CHANNEL RADAR SIGNAL SEPARATION ALGORITHM

Xinyu Wang[1], Jin Zhao[2], Xianliang Wu[3*]
[1]Key Lab of Intelligent Computing & Signal Processing, Ministry of Education, Anhui University, Hefei, China
[2]Key Lab of Intelligent Computing & Signal Processing, Ministry of Education, Anhui University, Hefei, China
[3]Key Lab of Intelligent Computing & Signal Processing, Ministry of Education, Anhui University, Hefei, China

C0749 POWER EQUALIZATION MODEL BASED ON NEURAL NETWORKS FOR UNEQUAL POWER DOA ESTIMATION

Jun Wang[1,2,3], Yan Chang[1], Zihan Wu[1], Zhiquan Zhou[1,2,3*]
[1]Harbin Institute of Technology (Weihai), Weihai, China
[2]Shandong Provincial Key Laboratory of Marine Electronic Information and Intelligent Unmanned Systems
[3]Key Laboratory of Cross-Domain Synergy and Comprehensive Support for Unmanned Marine Systems, Ministry of Industry and Information Technology

C0755 NON-CONTACT RADAR VITAL SIGNS DETECTION BASED ON DBO-VMD AND COEFFICIENT DISCRIMINATION

Hongtao Zhao[1], Minglei Yang[1*], Longtao Chang[1], Xueyi Wang[1]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, China

C0761 QUANTUM FAST ITERATIVE SHRINKAGE THRESHOLDING ALGORITHM FOR RADAR IMAGE RECOVERY

Xiaowen Liu[1], Ying Luo[2], Fang Yuan[1], Kai Li1, Haipeng Li[1]
[1]Test Center, National University of Defense Technology, Xi'an, China
[2]Institute of Information and Navigation, Air Force Engineering University, Xi'an, China

C0801 NR-ADMM-NET：A NOISE ROBUST TIME-FREQUENCY ENHANCEMENT METHOD

Xiaodan Liu[1*], Xiaotian Liu[1], Xueru Bai[1]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, China

C0844 SPECTRUM-DECOMPOSITION BASED FAST-TIME DOMAIN ALGORITHM FOR SAR ECHO GENERATION

Yingying Zhang, Ming Shi, Jie Guo, Zao Wang, Song Zhou
School of Information Engineering Nanchang University, Nanchang, China

C0852 LOW-COMPLEXITY DOA AND POLARIZATION ESTIMATION VIA MOVING SPARSE NESTED ARRAY

Lijun Lu[1], Guojun Jiang[1*], Yunlong Yang[2], Rui Xu[1], Ge Tang[1], Keyu Zhai[1]
[1]School of Information Science and Engineering, East China University of Science and Technology, Shanghai, China
[2]School of Information Science and Technology, Donghua University, Shanghai, China

C0859 SPATIALLY VARYING SIDELOBE SUPPRESSION FOR SPACEBORNE SAR TERRAIN MATCHING CURVED IMAGING

Chenyu Li[1,2], Yan Wang[1,2,3*], Xuan Wang[1], Hui Kuang[4], Zegang Ding[1,2,3]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China
[2]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing 314019, China
[3]Beijing Institute of Technology, Chongqing 401331, China
[4]Remote Sensing Satellite General Department of China Academy of Space Technology, Beijing, 100094, China

C0873 A LONG-TIME COHERENT INTEGRATION METHOD FOR MARINE MOVING TARGET DETECTION WITH GNSS-S RADAR

Yao Zhang[1], Hongqiang Wang[1], Yue Pang[1], Shichao Jin[1], Zhenghuan Xia[1*]
[1]State Key Laboratory of Space-Ground Integrated Information Technology, Beijing Institute of Satellite Information Engineering, Beijing, China

C0887 A FAST BACK-PROJECTION ALGORITHM BASED ON EQUIVALENT SLANT RANGE MODEL FOR HIGH-SQUINT SAR IMAGING

GaoTian Xu[1], Tianyi Ca[2], Yachao Li[1*], Tinghao Zhang[1]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, China
[2]Beijing Institute of Remote-Sensing Equipment, Beijing, China

C0896 SIMULTANEOUS EXTRACTION-OF-REFERENCE AND DIRECTION-FINDING FOR COHERENT SIGNALS

Xiang Yu Peng[1], Lu Yao Sun[1], Ning Liu[2], Kai Chang[2], Qun Wan[1*]
[1]School of Information and Communication Engineering, University of Electronic Science and Technology of China, Chengdu, China
[2]Northern Institute of Electronic Equipment, Beijing, China

C0930 DEEP SBL NETWORK-BASED DOA ESTIMATION FOR NESTED ARRAY WITH MUTUAL COUPLING

Xiaolong Su, Zhenghui Gong*, Panhe Hu, Tianpeng Liu and Zhen Liu
College of Electronic Science and Technology, National University of Defense Technology, Changsha 410073, China

C0953 A COHERENT WEAK SIGNAL DIRECTION FINDING METHOD BASED ON ANISOTROPIC COUPLING

Qun Wan[1*], Bo Chen Du[1], Si Long Tang[2], Yan Hong Liu[2], Ning Liu[3], Kai Chang[3]
[1]School of Information and Communication Engineering, University of Electronic Science and Technology of China, Chengdu, China
[2]Tongfang Industrial Co., Ltd
[3]Northern Institute of Electronic Equipment, Beijing, China

C0966 JOINT PULSE SIGNAL DETECTION AND DOA ESTIMATION ALGORITHM BASED ON EIGENVALUE DISTRIBUTION of SAMPLE AUTOCORRELATION MATRIX

Xiang Yu Peng[1], Rui Dong Liu[1], Ning Liu[2], Kai Chang[2], Qun Wan[1,3*]
[1]School of Information and Communication Engineering, University of Electronic Science and Technology of China, Chengdu, China
[2]Northern Institute of Electronic Equipment, Beijing, China
[3]Precision Measurement Radar System Technology Key Laboratory of Sichuan Province

C0970 SPARSE REPRESENTATION BASED DOA ESTIMATION OF MIXED CIRCULAR AND NON-CIRCULAR SIGNALS

Jinfeng Zhang, Liya Xu, Ping Chu, Qianhui You, Bin Liao
Guangdong Key Laboratory of Intelligent Information Processing,
College of Electronics and Information Engineering, Shenzhen University, Shenzhen 518060, China

C0985 PARAMETER ESTIMATION FOR COMPOUND INTERRUPTED SAMPLING AND REPEATING JAMMING

Liyi Liu[1], Qinzhe Lv[1], Yaojun Wu[1], Yinghui Quan[1*]
[1]Department of Remote Sensing Science and Technology, School of Electronic Engineering, Xidian University, Xi'an 710071, China

C1000 QUADRATURE PHASE-CODED SIGNAL MODEL AND SIGNAL PROCESSING METHOD FOR FREQUENCY DIVERSE ARRAY RADAR

Changjie Wang[1], Siqi Li[2*], Xinliang Chen[1], Quanhua Liu[2]
[1]Key Laboratory of Electronic and Information Technology in Satellite Navigation (Beijing Institute of Technology), Ministry of Education, Beijing 100081, China
[2]Chongqing Innovation Center, Beijing Institute of Technology, Chongqing 401135, China

Poster Session 7: Advanced Radar Application

Time: 15: 00 - 16: 00, December 5, 2023
Place: Gaoke Junior Ballroon 2
Chairs: Dr. Bin Wang, Beijing Institute of Technology, China
Dr. Gen Li, Beijing Institute of Technology, China
Prof. Yuhao Yang, The 14th Research Institute of China Electronics Technology Group Corporation, China

B0136 THE SYNTHESES DESIGN OF AN S-BAND 32-CHANNELBROADBAND FILTER AND MONITORING NETWORK
Songtao Xi[1], Rui Xu[2]
[1]Nanjing Glarun Defense System Co., Ltd, Nanjing, China
[2]Nanjing Research Institute of Electronics Technology, Nanjing, China

B0203 DESIGN OF ASYMMETRIC BEAM ANTENNA AND ITS GAIN JITTEROPTIMIZATION METHOD
Song Li, Ziqiang Tong*
Freetech Intelligent Systems Co.,Ltd, Shanghai, China

B0243 SURFACE MOUNTED HIGH-POWER DIRECTIONAL COUPLER BASED ON CERAMIC QUAD FLAT NO-LEAD PACKAGE
Xi-tong Feng[1], Xiao-ju Zhu[2], Qian Li[1], Zheng-bin Wang[1*]
[1]The College of Electronic and Optical Engineering, Nanjing University of Posts and Telecommunications, Nanjing, China
[2]Portland Institute, Nanjing University of Posts and Telecommunication, Nanjing, China

B0256 OPTIMIZATION DESIGN OF POWERDENSITYANDCOMPREHENSIVE EFFICIENCY FOR Ka BANDSOLID STATE TRANSMITTING DEVICE
Xi Xia, Heng Zang, Xiaochao Jing, Xiaofan Xu*
NO.724 Research Institute of CSSC, Nanjing, China

B0287 CAVITY FILTER WITH MIXED ELECTROMAGNETIC COUPLING
Han-ping Fang[1], Xi-tong Feng[2], Xu Zhang[2], Zheng-bin Wang[2*]
[1]Nanjing glarun defence system co., ltd., Nanjing 210039, China.
[2]The College of Electronic and Optical Engineering, Nanjing University of Posts and Telecommunications, Nanjing, China

B0339 A QUANTIZED LOBES REDUCTION METHODBASED ON THINNED STRATEGY FOROVERLAPPED SUBARRAY ARCHITECTURE
Hui Zeng[1], Zhenhai Xu[1*], Gongqing Yang[1], LuoShengbin Wang[1], Wei Dong[2], Shangqing Pu[1], Shunping Xiao[1]
[1]College of Electronic Science and Technology, National University of Defense Technology, Hunan, Changsha, China
[2]National University of Defense Technology, Hunan, Changsha, China

B0340 MODULAR SUBARRAYED LARGE-ELEMENTSPACING ARRAY DESIGN UTILIZING GRADIENT OPTIMIZATION

Gongqing Yang*, Hui Zeng, Zhenhai Xu, Shengbin Luo Wang
The auothors are with the State Key Laboratory of Complex Electromagnetic Environmental Effects on Electronics and Information System, National University of Defense Technology, Changsha 410073, China

B0383 DIFFERENCE PATTERN SYNTHESIS FOR SUBARRAYED MONOPULSELINEAR ARRAY VIA COMPRESSED SENSING

Xiaowen Zhao[1,2*], Yunhua Zhang[1,2]
[1]CAS Key Laboratory of Microwave Remote Sensing, National Space Science Center, Chinese Academy of Sciences, Beijing, China
[2]The University of Chinese Academy of Sciences, Beijing, China

B0454 SUBARRAYED ARRAY THINNING USING ITERATIVE FFT

Bingfan Liu[1*], Zhenyu Li[1], Baixiao Chen[2], Bing Gao[1], Huaigen Zhang[1]
[1]Nanjing Research Institute of Electronics Technology, Nanjing, China
[2]National Laboratory of Radar Signal Processing, Xidian University, Xian, 710071, China

B0482 MULTI-OBSERVATION SCHEME FOR ARBITRARY SPARSE ARRAY MOTION

Yule Zhang[1,2], Hao Zhou[2*], Guoping Hu[2], Ghenghong Zhan[1,2], Shuhan Guo[1,2]
[1]Graduate College, Air Force Engineering University, Xi'an, China
[2]Air and Missile Defense College, Air Force Engineering University, Xi'an, China

B0538 A NOVEL PHASE-ONLY PATTERN NULLING ALGORITHM

Chengjun Lu*, Ziqiang Meng, Jiaolong Shan
AVIC Leihua Electronic Technology Institute, Wuxi, China

B0605 PERFORMANCE ANALYSIS OF SCANNING GAIN FOR IRREGULAR ULTRA WIDEBAND PHASED ARRAY ANTENNAS BASED ON SUBARRAYS

Liang Zhou, Yongcai Liu, Haonan Yang, and Jin Meng
National Key Laboratory for Electromagnetic Energy, Wuhan, China

B0799 LOW-PROFILE ORBITAL ANGULAR MOMENTUM ANTENNA WITH CIRCULAR POLARIZATION BASED ON POLARIZATION-CONVERSION TRIFUNCTIONAL METASURFACE

Li Guo*, Longxin Jiao, Wanchun Yang
School of Automation and Electronic Information, Xiangtan University, Xiangtan, China

B0871 A LOW-PROFILE MINIATURIZED SECOND-ORDER BANDPASS FREQUENCY SELECTIVE SURFACEBASED ON LIQUID CRYSTAL

Jian-Feng Lv[1*], Yong Zhang[1], Tao Zhang[1], Yuan Cheng[1], Fan-Yi Meng[2]
[1]AVIC Lei hua Electronic Technology Institute, Wuxi, China
[2]Harbin Institute of Technology, Harbin, China

B795 CORRELATION ANALYSIS OF ENTROPY AND SCANNING PERFORMANCE BASED ON IRREGULAR SUBARRAY DESIGN

Xinxin Li[1], Wei Dong[2*], Zhenhai Xu[1], Shunping Xiao[1]
[1]College of Electronic Science and Technology, National University of Defense Technology, Changsha, China
[2]College of Advanced Interdisciplinary Studies, National University of Defense Technology, Changsha, China

B820 THE DESIGN OF RF-DIGITAL INTEGRATED MICROSYSTEM FOR REMOTE SENSING APPLICATIONS

Guoliang Zhu[1,2*], Xuan Wang[2], Jinjian Zhang[2], Feng Liu[2]
[1]Beijing Institute of Technology, Beijing, China
[2]Beijing Research Institute of Telemetry, Beijing, China

C0038 A NOVEL DICTIONARY-CORRECTED SPARSERECOVERY STAP ALGORITHM BASED ON PRIOR KNOWLEDGE

Zhiqi Gao[1,2], Caimei Zhao[1,2], Pingping Huang[1,2*], Wei Xu[1,2], Weixian Tan[1,2]
[1]College of Information Engineering, Inner Mongolia University of Technology, Hohhot 010080, China
[2]Inner Mongolia Key Laboratory of Radar Technology and Application, Hohhot 010051, China

C0062 DESIGN OF AGILE MULTI-BEAM WAVE CONTROL SYSTEM BASEDON KA PHASED ARRAY ANTENNA

HUANG Zhen, DONG Huijuan, YU Qingfa
No.38 Research Institute of China Electronic Technology Group Corporation, Heifei, China

C0084 A DIRTY PAPER FORCING ZERO MULTI-BEAMFORMING ALGORITHM FOR KA-BAND RADAR

Yumeng Zhang, Xinyi Zha, Xiaoqing Xia*
Nanjing Glarun Defense System Co., Nanjing, China

C0100 A MODIFIED GENETIC ALGORITHM BASED ONTHE MONARCH SCHEME FOR THINNED PLANARARRAY SYNTHESIS

Zheming Guo, Baixiao Chen*, Saiqin Xu, Hao Lian
National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, China

C0141 A NOVEL MIMO-STAP FILTER FOR HETEROGENEOUS CLUTTER SUPPRESSION AND JOINT TRANSMIT WAVEFORM DESIGN

Lai Jiang[1], Yaowen Li[2], Yu Liu[1*], Zhizhuo Jiang[2]
[1]Department of Electronic Engineering, Tsinghua University, Beijing, China
[2]Tsinghua Shenzhen International Graduate School, Tsinghua University, Shenzhen, China

C0189 A FAST OFF-GRID STAP ALGORITHM BASED ON MARGINAL LIKELIHOOD MAXIMIZATION

Xinying Zhang, Tong Wang*
National Key Laboratory of Radar Signal Processing Xidian University, Xi'an City, China

C0217 ANALYSIS ON THE MINIMAL NUMBER OF UNIFORM SUB-BANDS FOR WIDEBAND ADAPTIVE BEAMFORMING

Zhenzhen Hu[1], Jun Wang[1,2], Zhao Dong[1], Bin Yang[1*]
[1]School of Electronic and Information Engineering, Beihang University, Beijing, P. R. China
[2]Hangzhou Innovation Institute of Beihang University, Hangzhou, P. R. China

C0345 DIRECTION-OF-ARRIVAL ESTIMATION AND SELF-CALIBRATION IN PARTIALLY CALIBRATED ACOUSTIC VELOCITY SENSORS

Jianmin Li[1], Wei Zhang[2]
[1]The 29th Research Institute of China Electronics Technology Group Corporation, Chengdu, China
[2]National Key Laboratory of Electromagnetic Space Security, Chengdu, China

C0390 DATA-DEPENDENT CHANNEL SELECTION METHOD FOR STAP BASED ON MVDR CRITERION

Li Yu[1], Chen Jinming[1], Cheng ZiYang[2], Wang Weiwei[1*], Zhang Jun[1], Wu Tao[1], Duan Chongdi[1]
[1]Xi'an Institute of Space Radio Technology, No.504, East Changan Street, Changan district, Xi'an, China
[2]University of Electronic Science and Technology of China, No. 2006, Xiyuan Street, West Gaoxin district, Chengdu, China

C0395 PERFORMANCE ANALYSIS OF SUBARRAY-LEVEL STAP FOR SPACE-BASED EARLY WARNING RADAR

Yufan Li[1], Xingjia Yang[1], Keqing Duan[1*], Yongliang Wang[2]
[1]School of Electronics and Communication Engineering, Sun Yat-Sen University, Shenzhen, China
[2]Wuhan Early Warning Academy, Wuhan, China

C0545 ROBUST ADAPTIVE BEAMFORMING BASED ON INTERFERENCE STEERING VECTOR ESTIMATION AND PROBABILITY CONSTRAINED UNDER POSITION ERRORS

Wolin Li1, Bowen Han[1], Hongzhe Miao[1,2], Xiaodong Qu[1*], Xiaopeng Yang[1,2]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China.
[2]Yangtze Delta Region Academy of Beijing Institute of Technology, Jiaxing 314001, China.

C0589 CRAMÉR-RAO BOUNDS OF DIRECTION-OF-ARRIVAL ESTIMATION FOR END-FIRE ARRAY AIRBORNE RADAR

Haihong Wang[1], Runrong Chen[1], Wenchong Xie[2], Keqing Duan[1*]
[1]School of Electronics and Communication Engineering, Sun Yat-sen University, Shenzhen, China
[2]Wuhan Early warning Academy, Wuhan, China

C0724 QUANTIZATION ANALYSIS OF FREQUENCY DIVERSE ARRAYS BASED ON SYMMETRICLOGARITHMS FREQUENCY OFFSET

Changyu Pei[1,2*], Wei Xu[1,2], Pingping Huang[1,2], Weixian Tan[1,2], Zhiqi Gao[1,2], Yaolong Qi[1,2]

[1]Inner Mongolia Key Laboratory of Radar Technology and Application, Hohhot, Inner Mongolia, China

[2]College of Information Engineering, Inner Mongolia University of Technology, Hohhot, Inner Mongolia, China

C0851 AN APPROACH TO WEAK SIGNAL EXTRACTION UNDER IGNORANCE OF DIRECTION OF ARRIVAL

Ning Liu[1,2], Yi Liu[1], Kai Chang[2], Xiang Yu Peng[1], Qun Wan[1*]

[1]University of Electronic Science and Technology of China, Chengdu, China

[2]Northern Institute of Electronic Equipment, Beijing, China

C0923 KNOWLEDGE-AIDED COVARIANCE MATRIX ESTIMATION ALGORITHM BASED ON GEOMETRIC MEAN IN STAP FOR AIRBORNE RADAR

Yang Jing[1], Xiaolin Du[1*], Guolong Cui[2], Jibin Zheng[3], Jianbo Li[4]

[1]School of Computer and Control Engineering, Yantai University, Yantai, China

[2]School of Information and Communication Engineering, University of Electronic Science and Technology of China, Chengdu, China

[3]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an, China

[4]School of Communication and Information Engineering, Chongqing University of Posts and Telecommunications, Chongqing, China

C0982 RADAR AND COMMUNICATION SPECTRAL COEXISTENCE DESIGN UNDER MOBILE MULTI-TARGET SCENARIOS

Junhui Qian[1*] , Jinru Zhang[1], Zhuoran Sun[1], Guobin Qian[2], Shiyuan Wang[2]

[1]School of Microelectronic and Communication Engineering, Chongqing University, Chongqing, 400044, China

[2]School of Electronic and Information Engineering, Southwest University, Chongqing, 400715, China

G015 WATER LEVEL VARIATION OF HONGZE LAKE MEASURED BY TIANGONG-2 INTERFEROMETRIC IMAGING RADAR ALTIMETER

Xueyan Kang[1*], Yunhua Zhang[1], Yanhong Wang[2], Xiao Dong[1], Wenshuai Zhai[1]

[1]CAS Key Laboratory of Microwave Remote Sensing, National Space Science Center, Chinese Academy of Sciences, Beijing, China

[2]River and Coastal Engineering Department, Nanjing Hydraulic Research Institute, Nanjing, China

G027 **AN ENHANCING BIOLOGICAL ECHO CLASSIFICATION METHOD WITH POLARIMETRIC WEATHER RADAR USING RANDOM FOREST CLASSIFIERS**

Zhuoran Sun[1,2,3], Rui Wang[1,2,3*], Kai Cui[1,2,3,4], Huafeng Mao[1,2,3],
Cheng Hu[1,2,3], DongliWu[5]
[1]Radar Research Laboratory, School of Information and Electronics, Beijing Institute of Technology, Beijing, China, 100081
[2]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, China, 250300
[3]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing, China, 100081
[4]School of Computer Sciences, Beijing Institute of Technology, Beijing, China, 100081
[5]Meteorological Observation Centre of China, Meteorological Administration, Beijing, China, 100081

G106 **DESIGN AND GROUND EXPERIMENT OF ASTEROID INTERNAL STRUCTURE DETECTION RADAR (AISDR) ONBOARD TIANWEN-2 MISSION**

Ruidong Liu[1*]. Shuanlao Li[1]. Shi Zheng[1]. Yinguang He[1]. Shun Dai[2].
Peng Liu[3].Hongxing Dang[1]. Xiaomin Tan[1]
[1]Xi'an Branch China Academy of Space Technology, Xi'an,100071, China
[2]National Astronomical Observatories, Chinese Academy of Sciences, Beijing 100101, China National Space Science Centre, Beijing 100190, China

G125 **SSA-LSTM URBAN SURFACE DEFORMATION CHANGE PREDICTIVE MODEL RESEARCH BASED ON TIMING INSAR**

Yuejuan Chen[1,2], Siai Du[1,2], Pingping Huang[1,2*], Cong Ding[1,2],
Yaolong Qi[1,2], WeixianTan[1,2], Wei Xu[1,2], Bo Yin[2,3]
[1]College of Information Engineering, Inner Mongolia University of Technology, Hohhot 010080, China
[2]Inner Mongolia Key Laboratory of Radar Technology and Application, Hohhot 010051, China
[3]College of Resources and Environmental Engineering, Inner Mongolia University of Technology, Hohhot010051, China

G235 **RETRIEVAL OF PRECIPITATION INTENSITY BY DOPPLER PROCESSING AND LINEAR REGRESSION USING Ka-BAND CW RADAR**

Genhua Chen, Taorong Qiu, Man Hu, Zheye Tang
Nanchang Institute of Technology (NIT), Nanchang, China

G264 **RESEARCH OF OBSERVING HARBOUR MARINE FOGS AND RETRIEVING VISIBILITY BASED ON MILLIMETER WAVE RADAR**

Liu Guangpu[1], Chen Binyuan[2*]
[1]Atmospheric Sounding and Technical Support Centre of Fujian Province, Fuzhou, China
[2*]Zhangzhou Meteorological Bureau, Zhangzhou, China

G307 **RESEARCH ON RADAR IMAGE CHANGE DETECTION BASED ON WEIGHT DENOISING AND DISCRETE COEFFICIENT K-MEANS CLUSTERING**

Yuejuan Chen[1,2], YangLiu[1,2], Pingping Huang[1,2*], Yaolong Qi[1,2],
Weixian Tan[1,2], Wei Xu[1,2],Bo Yin[2,3]
[1]College of Information Engineering, Inner Mongolia University of Technology, Hohhot 010080, China
[2]Inner Mongolia Key Laboratory of Radar Technology and Application, Hohhot 010051, China
[3]College of Resource and Environmental Engineering, Inner Mongolia University of Technology, Hohhot010051, China

G310 **DETECTING VERTICES OF HYPERBOLAS IN GPR DATA USING FULLY CONVOLUTIONAL NEURAL NETWORK**

Conglong Guo[1], Xiaopeng Yang[1,2], Shubo Liang[1,2], Yanjie Cao[1], Tian Lan[1,2*]
[1]Beijing Institute of Technology, Beijing, China
[2]Chongqing Innovation Center, Beijing Institute of Technology, Chongqing, China

G320 **A TIME-VARIANT CROSS-TRACK ERROR PHASE REMOVAL METHOD FOR ATI-SAR**

Shuhang Wang[1,2], Weiya Kong[1], Feng Xiao[1], Yong Zhao[1], Wei Dong[1], Hanwei Sun[1*]
[1]Beijing Institute of Radio Measurement, Beijing 100039, China
[2]The Graduate School of Second Academy of China Aerospace, Beijing 100854, China

G329 **A QUANTITATIVE ESTIMATION METHOD OF MIGRATING INSECTS USING WEATHER RADAR BY HIGH RESOLUTION RADAR JOINT OBSERVATION**

Jiayi Li[1,2], Kai Cui[1,3,4*], Cheng Hu[1,2], Rui Wang[1,2], Huafeng Mao[1,2]
[1]Radar Research Laboratory, School of Information and Electronics, Beijing Institute of Technology, Beijing, China, 100081
[2]Key Laboratory of Embedded Real-time Information Processing Technology, Radar Research Laboratory, School of Information and Electronic, Beijing Institute of Technology, Beijing, China,100081
[3]School of Computer Sciences, Beijing Institute of Technology, Beijing, China, 100081
[4]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, China, 250300

G355 **COMPARATIVE ANALYSIS OF REFLECTIVITY FACTORS BETWEEN GPM SPACEBORNE DUALFREQUENCY PRECIPITIATION RADAR AND SBAND RADAR**

Qian Yang[1], Fei Ye[1], Lixia Shi[2*], Wei She[3], Lu Li[4], Jiao He[1],
Jiazhi Yin[1], Zehao Huang[1], Yiyuan Fu[1]
[1]Changsha Meteorological Radar Calibration Center, Changsha, China
[2]Inner Mongolia Bayannur Meteorological Bureau, Bayannur, China
[3]Changsha Meteorological Bureau, Changsha, China
[4]CMA Meteorological Observation Centre, Beijing, China

G367 HYBRID INTEGRATION DETECTION OF MOVING TARGET WITH MODERATELY FLUCTUATING RCS

Hongying Zheng, Qilei Zhang*, Yongsheng Zhang, Shangqu Yan
College of Electronic Science and Technology, National University of Defense Technology, Changsha, China

G379 ASSESSMENT OF REFINED X-BAND POLARIMETRIC RADAR TECHNOLOGY APPLICATION

Hui Wang[1], Yue Lai[1], Siteng Li[2*], Haifeng Yu[3], Shuai Zhang[4] , Qingchun Meng[1]
[1]Beijing Meteorological Observation Center, Beijing, China
[2]Institute of Urban Meteorology, Beijing, China
[3]HuaYun Metstar Radar (Beijing) Co., Ltd, Beijing, China
[4]Radar Meteorological Center, CMA, Beijing, China

G399 URBAN AREA EXTRACTION BASED ON POLARIMETRIC FEATURES USING DP-UNET

Canbin Hu[1], Yifei Wang[1], Xiaokun Sun[1*], Hongyun Chen[1],
Yang Chen[1], Deliang Xiang[1,2,3]
[1]College of Information Science and Technology, Beijing University of Chemical Technology, Beijing, China
[2]Beijing Advanced Innovation Center for Soft Matter Science and Engineering, Beijing University of Chemical Technology, Beijing, China
[3]Interdisciplinary Research Center for Artificial Intelligence, Beijing University of Chemical Technology, Beijing, China

G414 AN INSECT SWARM SEGMENTATION ALGORITHM BASED ON MASK R-CNN

Zhibo Zhang[1,3], Weidong Li[1,2,3 *], Rui Wang[1,2,3], Lianjun Wang[1,3],
Fan Zhang[1,3], ChengHu[1,2,3]
[1]Radar Research Lab, School of Information and Electronics Beijing Institute of Technology, Beijing, China
[2]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, Shandong, China
[3]Beijing Key Laboratory of Real-Time Information Processing Technology of Embedded (Beijing Institute of Technology), Beijing, China

G420 MULTILAYER RANGE MIGRATION BASED ON AUTOFOCUSING TECHNOLOGY USING GPR DATA

Jingbo Wang[1], Xiaopeng Yang[1], Tian Lan[2*]
[1]School of information and electronics, Beijing Institute of Technology, 100081, Beijing, China
[2]Chongqing Innovation Center, Beijing Institute of Technology, 401120, Chongqing, China

G475 SINGLE-CHANNEL MILLIMETER WAVE RADAR NLOS IMAGING BASED ON MULTIPATH EFFECT

Chenrui Zhang, Zhanyu Zhu*
School of Electronic and Information Engineering, Soochow University, 215006, Suzhou, China

G476 MULTIBAND ITERATIVE COHERENT PROCESSING METHOD BASED ON THE ADMM FRAMEWORK

Ruimin Lu[1,3], Weidong Li[1,2,3*], Rui Wang[1,2,3], Lianjun Wang[1,3],
Muyang Li[1,3], Cheng Hu[1,2,3]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, China
[3]Key Laboratory of Real-Time Information Processing Technology of Embedded (Beijing Institute of Technology), Ministry of Education, Beijing, China

G489 THE OPTIMAL PARTITION NUMBER ESTIMATION ALGORITHM BASED ON VARIATIONAL INFERENCE

Jichuan Zhang[1], Qi Jiang[1*], Liang Xu[1], Rui Wang[123], Cheng Hu[123]
[1]The Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing100081, China
[2]The Advanced Technology Research Institute, Beijing Institute of Technology, Jinan 250300, China
[3]The Beijing Key Laboratory of Embedded Real-Time Information Processing Technology, Beijing 100081, China

G499 FULLY POLARIZED RADAR TARGET DETECTION AND WAVEFORM OPTIMIZATION UNDER RAINY CONDITION

Xinda Li[1], Xu Cheng[2], Xinjie Ju[1], Xuesong Wang[1], Jianbing Li[1*]
[1]College of Electronic Science and Technology, National University of Defense Technology, Changsha, Hunan410073, China
[1]State Key Laboratory of Complex Electromagnetic Environment Effects on Electronics and Information System, Changsha, Hunan 410073, China
[2]School of Computer Science and Engineering, Wuhan Institute of Technology, Wuhan 430205, China
[2]Hubei Key Laboratory of Intelligent Robot, Wuhan 430205, China

G559 NEAR-FIELD MILLIMETRE WAVE SAR IMAGING FOR NONDESTRUCTIVE TESTING

Huihui Dai, Yuhui He, Weikai Luo, Fangzheng Zhang*, Shilong Pan
College of Electronic and Information Engineering
Nanjing University of Aeronautics and Astronautics, Nanjing, China

G564 PERFORMANCE OF LOGISTIC AND TENT CHAOTIC SEQUENCES IN DIRECT SPREAD SPECTRUM COMMUNICATION APPLICATION

Guangkai Liu[1*], Guo Jie[1], Cheng Cheng[1], Jin Wang[2], Da Tang[1]
[1]Beijing Institute of Tracking and Telecommunication Technology, Beijing, China
[2]Shanghai Aerospace Electronic Technology Institute, Shanghai, China

G565 CLASSIFICATION OF BIRD AND DRONE BASED ON RADAR TIME-FREQUENCY ANALYSIS

Jialin Li[1,2,3], Weidong Li[1,2,3*], Rui Wang[1,2,3], Haibo Liu[1,3], Lianjun Wang[1,2,3],TianRan Zhang[4]
[1]Radar Research Lab, School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China
[2]Advanced Technology Research Institute, Beijing Institute of Technology, Jinan, Shandong 250300, China
[3]Beijing Key Laboratory of Embedded Real-time Information Processing Technology (Beijing Institute of Technology), Ministry of Education, Beijing 100081, China
[4]Beijing Institute of Electronic System Engineering, Beijing 100854, China

G670 AN EARTH-BASED RADAR HIGH RESOLUTION IMAGING TECHNOLOGY OF THE MOON BASED ON SUB-APERTURE DELAY DOPPLER ALGORITHM

Guangwei Zhang[1,2*], Zegang Ding[1,2,3], Yi Wei[1,2], Gen Li[1,2], Tianyi Zhang[1,2]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing Institute of Technology, Beijing, China
[3]Chongqing Innovation Center, Beijing Institute of Technology, Chongqing, China

G681 APPLICATION OF GROUND PENETRATING RADAR 3D DETECTION IN TUNNEL ENGINEERING

YANG Bing[1], LI Xinzheng[2]， ZHANG Xiaowei[2], WANG Boquan[3], JIN Xiaoguang[1*]
[1]School of Civil Engineering, Chongqing University, Chongqing 400045, China
[2]China Railway Changjiang Traffic Design Group Co. Ltd., Chongqing 401121, China
[3]The 5th Engineer Co. Ltd. of China Railway 11th Bureau Group, Chongqing 400030, China

G722 TIME DOMAIN ECHO SIMULATION OF AIRSHIPBORNE WEATHER RADAR BASED ON GROUNDBASED RADAR DATA

Zhijie Hu[1], Xichao Dong[1*], Zewei Zhao[1], Sihan Wang[1]
[1]Beijing Institute of Technology Chongqing Innovation Center, Chongqing, China

G742 CONVEX OPTIMIZATION BASED NEAR FIELD FOCUSING TECHNIQUE

Hao Wang[1], Qifei Zhang[1], Lianfeng Chen[1], Linyan Guo[1,2*]
[1]School of Geophysics and Information Technology, China University of Geosciences, Beijing 100083, China
[2]Key Laboratory of Intraplate Volcanoes and Earthquakes (China University of Geosciences, Beijing) ， Ministry of Education, Beijing 100083, China

G750 ORBIT ERROR ESTIMATION IN GROUND-BASEDRADAR LUNAR 3D IMAGING BASED ON MINIMUMENTROPY

Yuewen Yang[1,2], Kaiwen Zhu[1,2*], Zhen Wang[1,2], Zegang Ding[1,2,3]
[1]Radar Research Laboratory, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing Institute of Technology, Beijing, China
[3]Beijing Institute of Technology Chongqing Innovation Center, Chongqing, China

G758 DETECTION OF PRE-SEISMIC DEFORMATION OF 2021 MADUO M7.4 EARTHQUAKE BY USING ASF HYP3

Weiwei Bian, Jicang Wu*, Baocheng Lei, Lei Zhang, Hongyu Liang
Tongji University, College of Surveying and Geo-Informatics, Shanghai, China

G762 GROUND-BASED RADAR THREE-DIMENSIONAL IMAGING FOR MOON UNDER SPARSE OBSERVATIONS

Peiyao Liu[1,2,3], Kaiwen Zhu[1,2*], Zhen Wang[1,2], Zegang Ding[1,2,3]
[1]Radar Research Laboratory, School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Beijing Key Laboratory of Embedded Real-time Information Processing Technology, Beijing Institute of Technology, Beijing, China
[3]Chongqing Innovation Center, Beijing Institute of Technology, Chongqing, China

G764 MONITORING DEFORMATION OF BAIHETAN HYDROPOWER STATION BEFORE AND AFTER RESERVOIR IMPOUNDMENT BY USING TCP INSAR TECHNOLOGY

Kaiwen Yang[1], Jicang Wu[1*], Lei Zhang[1], Hongyu Liang[1], Weiwei Wu[2], Guojie Meng[2]
[1]College of Surveying and Geo-Informatics, Tongji University, Shanghai, China
[2]Institute of Earthquake Forecasting, China Earthquake Administration, Beijing

G800 JOINT ACCURACY EVALUATION METHOD OF MULTIPLE SCENARIOS FOR GNSS-BASED INSAR SYSTEM

Yunxuan Duan[1,2], Feifeng Liu[1,2*], Zhixiang Xu[1]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Key Laboratory of Electronic and Information Technology in Satellite Navigation (Beijing Institute of Technology), Ministry of Education, Beijing 100081, China

G880 GEO-CORRECTION METHOD FOR MICRO-DEFORMATION MONITORING RADAR IMAGE AND DEM FUSION

Zhiyong Wang, Weixian Tan*, Pingping Huang, Yaolong Qi, Wei Xu, Zhiqi Gao, Yuejuan Chen, Xinru Guo
Inner Mongolia University of Technology, Hohhot 010051, China
Inner Mongolia Key Laboratory of Radar Technology and Application, Hohhot 010051, China

G895 DESIGNS OF EARTH-BASED BI-STATION SYSTEM COMBINED WITH RADAR AND RADIO TELESCOPE FOR POLIN-SAR APPLICATION IN RADAR ASTRONOMY

Song YANG[1,2], Qiang GUO[1], Zonghua DING[2], Jinghai SUN[3]
[1]Harbin Engineering University, Harbin, China
[2]China Research Institute of Radiowave Propagation, Qingdao, China
[3]The National Astronomical Observatories of the Chinese Academy of Sciences, Beijing, China

G919 PRELIMINARY RESULT OF TIME DELAY ESTIMATION METHOD BASED ON RANGE VERNIER TECHNIQUE

Yumin Zhu[1,2], Han Li[1*], Tianyi Zhang[1], Junjie Huang[1], Zegang Ding[1,2]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Chongqing Innovation Center, Beijing Institute of Technology, Chongqing, China

G920 STUDY AN ADAPTIVE MEAN FILTERING METHOD FOR DIFFERENTIAL SAR INTERFEROMETRY

Weizuo Zhao, Weixian Tan*, Pingping Huang, Yaolong Qi, Wei Xu, Zhiqi Gao, Yuejuan Chen
Inner Mongolia University of Technology, Hohhot 010051, China
Inner Mongolia Key Laboratory of Radar Technology and Application, Hohhot 010051, China

G931 ANALYSIS OF PHASE SPACE-VARING CHARACTERISTICS OF CIRCULAR APERTURE MICRO-DEFORMATION MONITORING RADAR

Xinru Guo[1,2], Weixian Tan[1,2*], Yuan Gao[3], Pingping Huang[1,2], Yaolong Qi[1,2], Wei Xu[1,2],Zhiqi Gao[1,2], Xingyan Guo[1,2], Zhiyong Wang[1,2]
[1]Inner Mongolia University of Technology, Hohhot 010051, China
[2]Inner Mongolia Key Laboratory of Radar Technology and Application, Hohhot 010051, China
[3]Aerospace New Meteorological Technology Co., Ltd.

G958 ROTATIONAL STATUS INVERSION OF ASTEROIDS BASED ON ELLIPSOIDAL MODEL

Jiaxing Wang[1], Zehua Dong[1,2*], Zegang Ding[1,2]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing 100081, China
[2]Chongqing Innovation Center, Beijing Institute of Technology, Chongqing 401147, China

G968 ECHO MODELING FOR ASTEROIDS WITH ROUGH SURFACE INGOUND-BASED SAR IMAGING

Ziyi Zhou[1,2], Kaiwen Zhu[1,2], Yangkai Wei[1,2*], Zegang Ding[1,2,3]
[1]School of Information and Electronics, Beijing Institute of Technology, Beijing, China
[2]Beijing Key Laboratory of Embedded Real-Time Information Processing Technology, Beijing, China
[3]Chongqing Innovation Center, Beijing Institute of Technology, Chongqing, China

G996 HIGH-PRECISION DSM-BASED ALGORITHM FOR SAR ABSOLUTE RADIATION CALIBRATION

Fanyi Tang[1], Junrui Wang[2], Zhibin Wang[3], Jiahan Lou[1], Huancheng Guo[1], ZhenfangLi[1*]
[1]National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an , China
[2]ShangHai Institute of Aerospace Electronics Technology, Shanghai, China
[3]Country Institute of Remote Sensing Satellite, China Academy of Space Technology, Beijing, China

B0576 A THIN TUNABLE ABSORBING METAMATERIAL FOR INTELLIGENT STEALTH IN L BAND

Yu Huaijin[1]
[1]Unit 95696 of PLA, Chongqing, China

D0006 SATELLITE-MISSILE BISTATIC FORWARDLOOKING SAR IMAGING OF SHIP TARGET VIA HYBRID SAR-ISAR ALGORITHM

Guangzhao Qian[1] , Yong Wang[2]
[1] School of Electronics and Information Engineering, Harbin Institute of Technology, Harbin, China
[2] School of Electronics and Information Engineering, Harbin Institute of Technology, Harbin, China

About Chongqing

Hongya Cave (Hongyadong)

Hongya Cave has a history of over 2,300 years. It was a military fortress from the ancient Ba State (1046 BC - 256 BC) to the Ming and Qing Dynasties (1368 - 1911), and was also the site of the earliest and most developed pier of ancient China. The site now houses a large-scale stilt house complex built alongside a steep cliff on the bank of Jialing River. It has become a popular destination for visitors to experience Bayu culture - a Chinese ethnic culture, and taste delicious food. The stunning night view is a highlight and should not be missed. Hongyadong is an 11-storey, 75 meters (245 feet) stilt house abutting a steep cliff. It is popular with tourists for its similar appearance to a building in Spirited Away, a masterpiece of a famous Japanese cartoonist, Hayao Miyazaki. It is incredible that the 1st floor and the 11th floor are accessible by two different roads. Visitors can take an elevator to each level where various bars, café and restaurants are arranged. People can also see the symbolic Hongya Dripping on the 2nd floor, which is a small waterfall cascading down the cliff-face. It is regarded as one of the 12 Bayu Sites.

Ciqikou (Chongqing Ancient Town)

Ciqikou means "Porcelain Port" in Chinese by its name. In the early Qing Dynasty, due to the abundance and transfer of porcelain, the place was named Ciqikou as an important pier along the Jialing River. There is a poem goes that "Hundreds of ships are rowing ashore in the daytime, thousands of lights are shinning brightly in the evening", showing the prosperity of the town at the time. Also, epitomizing the ancient Chongqing, Ciqikou is reputed as "Little Chongqing". In Ciqikou, you can not only enjoy the charm of ancient architecture, but also experience the authentic Chongqing food. At the same time, there are a variety of handicraft shops, specialty food stalls and tea houses in the town, which make people linger.

Chongqing Jiefangbei Pedestrian Street

Jiefangbei stands in the most prosperous downtown center of Chongqing Jiefangbei, or the People's Liberation Monument, formerly known as the Monument of Victory in the War of Resistance, is a 27.51-meter high building. It is the center of the city, marked as Chongqing's commercial heart. It is surrounded by broad, paved pedestrian square and numerous glassy office skyscrapers and highrise hotels. Jeifangbei Shopping Square, itself completed at the end of 1997, is 400 meters from east to west, and 350 meters from north to south, covering an area of 24, 400 m². Around the square are more than 3,000 stores various kinds of shops, with more than two dozen shopping centers, star-graded hotels, offices such as banks, stock markets, trade and finance companies, postal and telecommunication services, and places of entertainment.

Dazu Rock Carvings

Dazu Rock Carvings in Chongqing are famous for their large scale, exquisite carvings, diverse themes, rich connotations and complete preservation. These carvings can date from the 9th to the 13th century. It integrates the essence of Chinese Buddhism, Taoism and Confucianism, and has become a bright pearl in Chinese grotto art with its distinctive characteristics of nationality and life. With a large number of physical images and written historical materials, it shows the style of Chinese stone carving art and the development and change of folk religious beliefs from different aspects from the end of the ninth century to the middle of the 13th century, and has made important contributions to the innovation and development of Chinese stone carving art, and has irreplaceable historical, artistic and scientific value of the previous grottoes. Many Europeans, especially the French, dote on Dazu stone carvings.

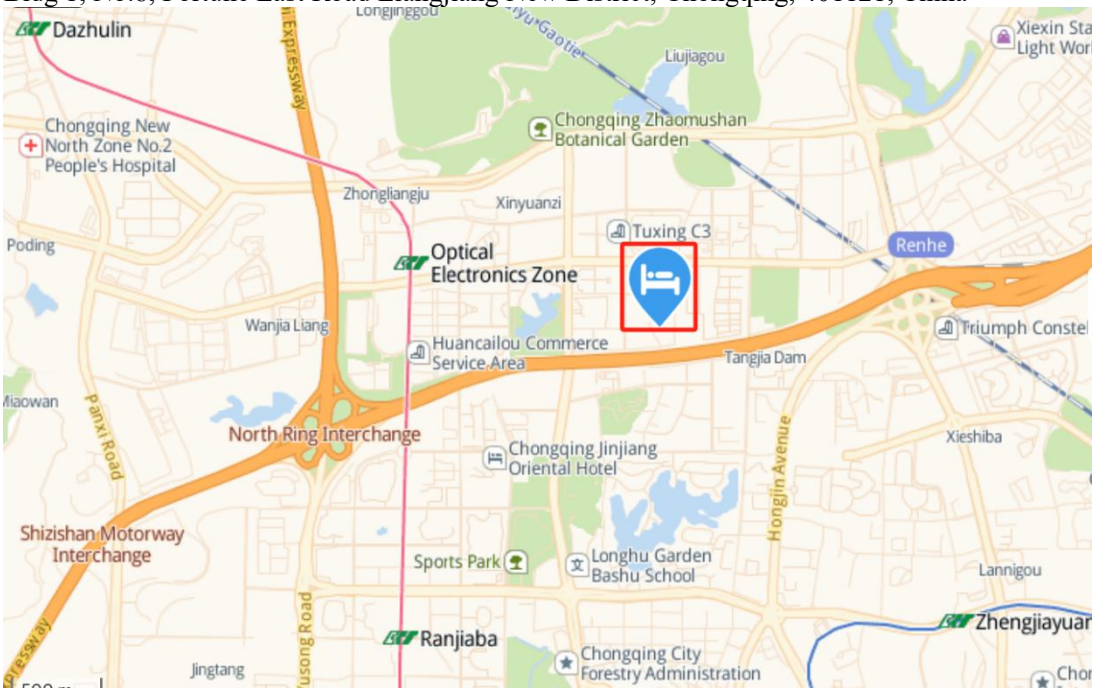
Wulong Sinkhole

Wulong Sinkhole in Chongqing represents the extraordinary workmanship of nature, creating a geological wonder. The sinkhole is located in Wulong Tiankeng National Geopark, which is the largest national geopark in Chongqing. With the natural sinkhole group, bridge group, the wonder of the ground crack, and spectacular waterfall as its main features, Wulong Sinkhole has been designated as a key scenic spot globally. It mainly includes the sinkhole itself, Natural Three Bridges and Wulong Crack scenic spot.The karst geological and geomorphic features in the park are particularly prominent. With the world's largest naturally-formed bridge group and the world's second largest sinkhole group, as well as the typical karst landform characteristics, these surface cracks are synonymous for being spectacular and majestic. Here is not only a great sightseeing resort, but also a teaching book for people to see nature, understand nature, and learn to protect nature.

Transportation

Hilton Chongqing Liangjiang New Area

Bldg 1, No.8, Fortune East Road Liangjiang New District, Chongqing, 401121, China



Arrival guide

Hilton Chongqing Liangjiang New Area is located in the heart of Chongqing Liangjiang New Area, close to Chongqing Liangjiang Digital Economy Industrial Park. The hotel is just a 10-minute drive from North Square of Chongqing North Railway Station, and close to Chongqing Jiangbei International Airport. It is also easy to reach Guanyinqiao Shopping Center, Hongya Cave, Ciqikou and other internet-famous spots.

From Airport

Chongqing Jiangbei International Airport
20 km, a 21-minute drive from Chongqing Jiangbei International Airport.

From Railway Station

North Square of Chongqing North Railway Station
5 km, a 10-minute drive from North Square of Chongqing North Railway Station.

Chongqing West Railway Station

18 km, a 20-minute drive from Chongqing West Railway Station.

From Metro

Honghudonglu station
617 m, a six-minute walk from Honghudonglu station.

雷科防务
RACO

Beijing Raco Defense Technology Co,.Ltd. (abbr."RACODEF") is a public company in Shenzhen Stock Exchange (SZSE: 002413) , with a registered capital of 1.34 billion RMB, and over 2,000 employees. RACODEF is composed of a series of subsidiary companies, including Beijing Racobit Electronic Information Technology Co., Ltd., Bejing Racobit Aerospace Information Technology Co., Ltd., Chengdu ACTi Technology & Development Co., Ltd., Xi'an Keyway Technology Co., Ltd., Xi'an HengDa Microwave Technology Development Co., Ltd. and YaoYun Technology (Xi' an) Co., Ltd, and focusing on businesses of radar systems, application of satellites, intelligent controlling, secure storage and intelligent & Internet connecting utilities. RACODEF adhere to independent innovation, and mastering several key technologies, is national high-tech enterprise. RACODEF has a national postdoctoral research station, and has official enterprise technological centers in Beijing and Sichuan province, is also qualified as a national "little giant" firm. RACODEF has manufacturing bases in Xi' an and Chengdu, utilizing advanced manufacturing technologies, and established intelligent CNC.

RACODEF always carries out its activities based on the enterprise spirits motto of "for country, team-working, hard-working, innovative", adhere to leading the innovation, blending development, focusing on serve the development of national defense and military industry, also national economy construction. Offering top class products, solutions and services to our customers.

IRC 2023

More Information