

Zhe (Peter) Zhang

Professor, Ph.D. Supervisor, IEEE Senior Member
NSFC Excellent Young Scientists Fund Program (Overseas)
CAS “One Hundred” Talent

DOB: 01/31/1988
ADDRESS (SUZHOU): Room B203-12, Lab 22
Suzhou Aerospace Information Research Institute
158 Dushuhu Ave, Suzhou Industrial Park, Suzhou, Jiangsu 215000, China
ADDRESS (BEIJING): Room 342, Main Bldg, Lab 1
Aerospace Information Research Institute, Chinese Academy of Sciences
19 West Beisihuan Road, Haidian District, Beijing 100190, China
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Aerospace Information Technology University
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Working Experience

2025.08–	Dean
2025.08–	Professor, Ph.D Supervisor School of Electronics Information, Aerospace Information Technology University , Jinan, Shandong 250200, China <i>Interest Field: Sparse signal processing, Sparse Microwave Imaging, Synthetic aperture radar, Three-dimensional SAR imaging, Combination of signal processing and deep learning.</i>
2023.01–	Lab Director Assistant, Academic Leader
2022.04–	Professor, Ph.D Supervisor
2021.01–2022.04	Associate Professor Aerospace Information Research Institute, Chinese Academy of Sciences , Beijing 100190, China National Key Laboratory of Microwave Imaging , Beijing 100190, China Suzhou Aerospace Information Research Institute , Suzhou, Jiangsu 215000, China Suzhou Key Laboratory of Microwave Imaging, Processing and Application Technology , Suzhou, Jiangsu 215000, China <i>Interest Field: Sparse signal processing, Sparse Microwave Imaging, Synthetic aperture radar, Three-dimensional SAR imaging, Combination of signal processing and deep learning.</i>
2023.10–	Double Employed Professor University of Chinese Academy of Sciences , Beijing 100190, China
2023.09–	Adjunct Professor

	Qian Xuesen Honors College, Xi'an Jiaotong University , Xi'an, Shaanxi 710049, China
2024.10–	Adjunct Professor Harbin Engineering University , Harbin, Heilongjiang, China
2025.05–	Adjunct Professor Beijing University of Posts and Telecommunications , Beijing, China
2016.12–2020.06	Post-Doctoral Research Fellow George Mason University , Fairfax, VA 22030, USA Advisor: Tian, Zhi, Professor, IEEE Fellow <i>Interest Field: Sparse signal processing, Atomic norm minimization, Combination of signal processing and deep learning.</i>
2015.12–2016.11	Post-Doctoral Research Scientist George Washington University , Washington, DC 20052, USA Advisor: Tian, Zhi, Professor, IEEE Fellow Cheng, Xiuzhen, Professor, IEEE Fellow <i>Interest Field: Sparse signal processing, Atomic norm minimization.</i>

Education

2009.09–2015.07	PH.D. / SIGNAL AND INFORMATION PROCESSING Institute of Electronics, Chinese Academy of Sciences University of Chinese Academy of Sciences Beijing 100190, China Supervisor: Wu, Yirong, Academician of CAS, Professor <i>Interest Field: Sparse microwave imaging, Sparse signal processing, Synthetic aperture radar.</i>
2014.01–2014.04	VISITING STUDENT University of Connecticut , Storrs, CT 06269, USA Supervisor: Zhou, Shengli, Professor, IEEE Fellow.
2004.09–2008.07 2003.09–2004.07	B. ENG. INFORMATION ENGINEERING SPECIAL CLASS FOR GIFTED YOUNG Xi'an Jiaotong University Xi'an, Shaanxi 710049, China.

Research Projects

2023.12–	Multi-beam Spaceborne High-Resolution Wide-Swath SAR System and Technology , RMB 25,350,000 Grant: <i>National Key Research and Development Program of China</i> , #2023YFB3904900 Principle Investigator.
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2022.1–	Sparse Signal Processing and Its Applications in Microwave Imaging , RMB 3,000,000 Grant: <i>NSFC Excellent Young Scientists Fund Program (Overseas)</i> Principle Investigator.
2024.7–	Development and Application of Multimodal Remote Sensing Big Data Intelligent Platform based on Ascend Technology , RMB 5,000,000 Grant: <i>iangsu Province Frontier Technology Research and Development Program</i> Principle Investigator.
2021.1–	Sparse Signal Processing and Deep Learning with Their Applications in Microwave Imaging , RMB 4,000,000 Grant: <i>CAS “One Hundred Talent” Project</i> Principle Investigator.
2021.12–	High Efficiency Sensing System and Technology of Three-dimensional Microwave Imaging , RMB 500,000 Grant: <i>Suzhou S&T Development Project, #ZXL2022381</i> Principle Investigator.
2021.7–	Structural Signal Adaptive High Efficiency sensing Theory and Its Applications in Microwave Imaging , RMB 1,300,000 Grant: <i>CAS Key Grant</i> Principle Investigator.
2020.1–	Synthetic Aperture Radar Microwave Vision Three-dimensional Imaging Theory and Application Foundations , RMB 20,000,000 Grant: <i>NSFC Major Program, #61991421, 61991420</i> Co-PI.
2018.8–2018.11	A Gated LFM CW TDMA MIMO SAR based Hidden Chamber Detector , USD \$150,000 Grant: <i>USSOCOM SBIR, #S173-004-0118</i> Participant.
2015.12–2020.6	Task-Cognizant Sparse Sensing for Inference , USD \$400,000 Grant: <i>National Science Foundation (NSF) Standard Grant, #1527396</i> Participant.
2010.04–2015.07	Theory, System and Methodology of Sparse Microwave Imaging , RMB 33,000,000 Grant: <i>National Major Fundamental Science Research Project (973 Project), #2010CB731900</i> Participant.
2012.04–2015.07	Advanced Microwave Sensing and Information Processing , RMB 4,300,000

| Grant: *Chinese Academy of Sciences*
| Participant.

Honors

2022.09 | **Jiangsu Chief Science and Technology Communication Expert** / *Jiangsu Science and Technology Association*

2024.11 | **Wiley China Excellent Author Program** / *Wiley*

2022.01 | **Excellent Young Scientists Fund Program (Overseas)** / *NSFC*

2021.01 | **CAS “One Hundred Talent”** / *Chinese Academy of Sciences*

2021.12 | **Suzhou “Gusu Leading Talent”** / *Suzhou City*

2022.12 | **Jiangsu “Innovative and Entrepreneurial Talent”** / *Jiangsu Province*

2022 | **CAS “Young Cross Teams” Member** / *Chinese Academy of Sciences*

Awards

2022.03 | **National Disruptive Technology Innovation Competition**
/ *Ministry of Science and Technology, China*
Excellence Prize in Final Competition

2021.12 | *Winner Prize*

2021.12 | *Excellence Prize*

2008.04 | **TI DSP Contest** / *Texas Instruments*
Winner Prize

2008.02 | **COMAP Mathematical Modeling Contest** / *COMAP*
Meritorious

2007.02 | *Honorable Mentioned*

2006.09 | **China College Mathematical Modeling Contest** / *CSIAM*
Second Prize

Services

Professional Society Membership and Services

| **Xi'an Jiaotong-Liverpool University**

2022.07–	<i>External Mentor</i>
2021.11–	<i>Pilotage Mentor</i>
	IEEE
2024.01–	<i>Senior Member</i>
2016.01–2024.01	<i>Member</i>
2010.01–2015.12	<i>Student Member</i>
	CSIG
	Microwave Intelligent Imaging Professional Committee
2024.06–	<i>Committee Member</i>
	CNC-ISDE
	Microwave Remote Sensing Professional Committee
2024.06–	<i>Committee Member</i>
	CIC
2025.05–	<i>Senior Member</i>
	Space-Air-Ground Integrated Network Communication Professional Committee
2024.06–	<i>Committee Member</i>
	CIE
2021.04–	<i>Member</i>
	JSAAI
2020.11–	<i>Member</i>

Journal Reviewers

- *IEEE Transactions on Signal Processing* Journal, SCI.
- *IEEE Signal Processing Letters* Journal, SCI.
- *IEEE Open Journal of Signal Processing* Journal, SCI.
- *IEEE Journal of Selected Topics in Signal Processing* Journal, SCI.
- *Signal Processing* Journal, SCI.
- *National Science Open* Journal, SCI.
- *IEEE Transactions on Geoscience and Remote Sensing* Journal, SCI.
- *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing* Journal, SCI.
- *IEEE Geoscience and Remote Sensing Letters* Journal, SCI.
- *IEEE Transactions on Industrial Electronics* Journal, SCI.
- *IEEE Sensors Journal* Journal, SCI.

- *IET Radar, Sonar & Navigation* Journal, SCI.
- *IET Electronics Letters* Journal, SCI.
- *IET Signal Processing* Journal, SCI.
- *Remote Sensing* Journal, SCI.
- *Science China Information Science* Journal, SCI.
- *Cogent Engineering* Journal, SCI.
- *Geo-spatial Information Science* Journal, SCI.
- *International Journal of Microwave and Wireless Technologies* Journal, SCI.
- *IEEE Access* Journal, SCI.
- *Tsinghua Science and Technology* Journal, SCI.
- *IEEE Transactions on Circuits and Systems for Video Technology* Journal, SCI.
- *IEEE Wireless Communications Letters* Journal, SCI.
- *Journal of Communications and Networks* Journal, SCI.
- *IEEE Transactions on Computational Imaging* Journal, SCI.
- *Journal of Radars* Journal, EI.

Vice President of Organizing Committee Member

- The 5th National Radar Earth Observation Symposium, Suzhou, China, May 23-25, 2025.

Organizing Committee Member and Technical Program Chair

- 2022 International Workshop on Microwave Vision and 3D SAR Imaging (MiViSAR 2022), Suzhou, China, Oct 17-19, 2022.

Session Chair

- 2022 IET International Radar Conference, Chongqing, China, Dec 3-5, 2023.
- 2024 Photonics and Electromagnetics Research Symposium (PIERS), Chengdu, China, Apr 21-25, 2024.
- 2024 IEEE International Conference on Signal, Information and Data Processing (ICSIDP), Zhuhai, China, Nov 22-24, 2024.

TPC Member / Reviewer

2024 | PIERS 2024, ICC 2024, CoSeRa 2024, EECSI 2024, Globecom2024, IJEECS 2024, EEET 2024, ICSIDP 2024, AIT 2024.

2023 | EECSI 2023, iSemantic 2023, Globecom 2023, SIRS 2023,

| IJCDS 2023, IJEECS 2023, IET Radar 2023.

2022 | EEET 2022, EECSI 2022, IJCDS, IJECE 2021-22, FSDM 2022.

2021 | IJEECS 2021, BEEI 2020-21, ICITech 2021, FSDM 2021, TELKOMNIKA 2021.

2020 | CITEI 2020, SIRS 2020, FSDM 2020.

2019 | SIRS 2019, DISP 2019

2018 | CoSeRa 2018, SIRS 2018, EECSI 2018, ICW-TELKOMNIKA 2018, FSDM 2018.

2017 | ICITech 2017, EECSI 2017, SIRS 2017, FSDM 2017.

2016 | CoSeRa 2016.

2015 | CoSeRa 2015, ISSPIT 2015, ICSPDM 2015.

Languages

ENGLISH: Professional (Reside in US for 5 years, CET-6/PETS-5/WSK pass, TOEFL 96)
JAPANESE: Fair

Open Source Projects and Services

2006.04–2015.11 | BMY BBS (<http://bbs.xjtu.edu.cn/>, <http://bmybbs.com/>)
Host: <https://github.com/bmybbs?type=source>
Technical Leader

2010.06–2019.04 | KYXK BBS (<http://bbs.ucas.ac.cn/>, <http://kyxk.net/>)
Technical Leader

2018.09– | hCNN (<https://github.com/pzhg/hCNN>)
Principle Developer

Publications (Bold for Corresponding / First Authorship)

JOURNAL ARTICLES

1. 王骛巍, 商明样, and 张柘 *, “一种改进 DBF 方法用于多通道 SAR 非均匀采样重构,” 河南科技大学学报, vol. 46, no. 3, pp. 1–10, 2025.
2. 海那尔·哈那提, 张柘, 朱利鲁, and 吴一戎 *, “基于区块链的多模态遥感大数据治理方法与系统,” 河南科技大学学报, vol. 46, no. 2, pp. 1–11, 2025, doi: 10.15926/j.cnki.issn1672-6871.2025.02.001.

3. C. Wang, Q. Yan, X. Qiu, Y. Luo, L. Peng, and Z. Zhang, "A Geometric Semantic Enhanced TomoSAR Reconstruction Algorithm in an Urban Area: Analysis and Application," *J. Remote Sens.*, vol. 5, Jan. 2025, doi: 10.34133/remotesensing.0583.
4. Z. Jin, Z. Pan, Z. Zhang*, and X. Qiu, "SAAS-Net: Self-Supervised Sparse Synthetic Aperture Radar Imaging Network with Azimuth Ambiguity Suppression," *Remote Sens.*, vol. 17, no. 6, p. 1069, Mar. 2025, doi: 10.3390/rs17061069.
5. D. Zhao, Z. Zhang*, D. Lu, X. Qiu, W. Li, H. Li, and Y. Wu, "CV-YOLO: A Complex-Valued Convolutional Neural Network for Oriented Ship Detection in Single-Polarization Single-Look Complex SAR Images," *Remote Sens.*, vol. 17, no. 8, p. 1478, Apr. 2025, doi: 10.3390/rs17081478.
6. S. Song, X. Qiu*, S. Shangguan, Y. Luo, Z. Li, and Z. Zhang, "A polarization-power-maximum-based 3D imaging method for Ku-band UAV-borne fully-polarimetric array InSAR," *IEEE J. Sel. Top. Appl. Earth Obs. Remote Sens.*, vol. 18, pp. 10320–10336, 2025, doi: 10.1109/JSTARS.2025.3555662.
7. Z. Wang, Z. Wang, X. Qiu, and Z. Zhang*, "Fine classification of multi-frequency PolSAR images using an adaptive fusion network," *Remote Sens. Lett.*, vol. 16, no. 5, pp. 461–471, May 2025, doi: 10.1080/2150704X.2025.2470884.
8. Y. Huang, H. Li, D. Lu, Z. Zhang, and W. Tie*, "Intelligence Evaluating Computational Power: A Multi-Factor Method," *IEEE Access*, vol. 13, pp. 27398–27415, 2025, doi: 10.1109/ACCESS.2025.3538977.
9. D. Wang, D. Lu, J. Zhao, W. Li, H. Li, J. Xu, J. Huang, and Z. Zhang*, "Multiscale Pillars Fusion for 4-D Radar Object Detection With Radar Data Enhancement," *IEEE Sens. J.*, vol. 25, no. 3, pp. 5102–5115, Feb. 2025, doi: 10.1109/JSEN.2024.3516786.
10. R. Shi, Y. Luo, Z. Zhang, X. Qiu*, and C. Ding, "A Three-Dimensional Imaging Method for Unmanned Aerial Vehicle-Borne SAR Based on Nested Difference Co-Arrays and Azimuth Multi-Snapshots," *Remote Sens.*, vol. 17, no. 3, p. 516, Feb. 2025, doi: 10.3390/rs17030516.
11. G. Zhou*, Y. Zuo, Z. Zhang, B. Zhang, and Y. Wu, "CR-DEQ-SAR: A Deep Equilibrium Sparse SAR Imaging Method for Compound Regularization," *IEEE J. Sel. Top. Appl. Earth Obs. Remote Sens.*, vol. 18, pp. 4680–4695, 2025, doi: 10.1109/JSTARS.2025.3533082.
12. M. Shao*, Y. Fan, Y. Zhang, Z. Zhang, J. Zhao, and B. Zhang, "A Novel Gridless Non-Uniform Linear Array Direction of Arrival Estimation Approach Based on the Improved Alternating Descent Conditional Gradient Algorithm for Automotive Radar System," *Remote Sens.*, vol. 17, no. 2, p. 303, Jan. 2025, doi: 10.3390/RS17020303.
13. P. Jiang, S. Gao, J. Zhao, Z. Zhang*, and B. Zhang, "Gridless DOA Estimation with Extended Array Aperture in Automotive Radar Applications," *Remote Sens.*, vol. 17, no. 1, p. 33, Dec. 2024, doi: 10.3390/rs17010033.
14. G. Zhou, Z. Zhang*, B. Zhang, and Y. Wu, "An innovative semantically guided SAR imaging and target enhancement method," *Electron. Lett.*, vol. 60, no. 24, p. e70123, Dec. 2024, doi: 10.1049/ell2.70123.
15. M. Wang, S. Gao, X. Qiu*, and Z. Zhang, "A Novel Phase Error Estimation Method for TomoSAR Imaging Based on Adaptive Momentum Optimizer and Joint Criterion," *IEEE J. Sel. Top. Appl. Earth Obs. Remote Sens.*, vol. 18, pp. 2042–2051, 2025, doi: 10.1109/JSTARS.2024.3506852.

16. X. Qiu*, Z. Jiao, Z. Zhang, Q. Yan, and C. Ding*, "Advances and prospects in SAR microwave vision three-dimensional imaging," *Natl. Sci. Open*, vol. 3, no. 5, p. 20240009, Sep. 2024, doi: 10.1360/nso/20240009.
17. Y. Zhao, D. Xiao, Z. Pan, B. W. K. Ling, Y. Tian, and Z. Zhang*, "Sparse SAR Imaging Based on Non-Local Asymmetric Pixel-Shuffle Blind Spot Network," *Remote Sens.*, vol. 16, no. 13, p. 2367, Jun. 2024, doi: 10.3390/rs16132367.
18. 仇晓兰, 罗一通, 宋舒洁, 彭凌霄, 程遥, 颜千程, 上官松涛, 焦泽坤, 张柘, 丁赤飏, "微波视觉三维 SAR 实验系统及其全极化数据处理方法," *雷达学报*, vol. 13, no. 5, pp. 941–954, Sep. 2024, doi: 10.12000/JR24137.
19. S. Gao, M. Wang, Z. Zhang*, B. Zhang, and Y. Wu, "Efficient Gridless DOA Estimation for Nonuniformly Spaced Linear Arrays in Automotive Radar Sensors," *IEEE Sens. J.*, vol. 24, no. 17, pp. 27737–27749, Sep. 2024, doi: 10.1109/JSEN.2024.342
20. M. Wang, X. Qiu*, Z. Zhang, and S. Gao, "A domain adaptation framework for cross-modality SAR 3D reconstruction point clouds segmentation utilizing LiDAR data," *Int. J. Appl. Earth Obs. Geoinf.*, vol. 133, p. 104103, Sep. 2024, doi: 10.1016/j.jag.2024.104103.
21. Y. Wu, R. Song, Z. Zhang*, X. Qiu, and W. Yu, "GSAT-Net: An Azimuth Ambiguity Suppression Network Based on Group Sparsity and Adaptive Threshold for Undersampling SAR Imaging," *IEEE Geosci. Remote Sens. Lett.*, vol. 21, pp. 1–5, 2024, doi: 10.1109/LGRS.2024.3452796.
22. S. Gao, M. Wang, Z. Zhang*, B. Zhang, and Y. Wu, "Efficient gridless 2D DOA estimation based on generalized matrix-form atomic norm minimization," *Electron. Lett.*, vol. 60, no. 10, p. e13212, May 2024, doi: 10.1049/ell2.13212..
23. Y. Zhao, C. Ou, H. Tian, B. W.-K. Ling, Y. Tian, and Z. Zhang*, "Sparse SAR Imaging Algorithm in Marine Environments Based on Memory-Augmented Deep Unfolding Network," *Remote Sens.*, vol. 16, no. 7, p. 1289, Apr. 2024, doi: 10.3390/rs16071289.
24. S. Gao, W. Wang, M. Wang, Z. Zhang*, Z. Yang, X. Qiu, B. Zhang, and Y. Wu, "A Robust Super-resolution Gridless Imaging Framework for UAV-borne SAR Tomography," *IEEE Trans. Geosci. Remote Sens.*, vol. 62, pp. 1–17, 2024, doi: 10.1109/TGRS.2024.3393972..
25. Z. Wang, Z. Wang, X. Qiu, and Z. Zhang*, "Global Polarimetric Synthetic Aperture Radar Image Segmentation with Data Augmentation and Hybrid Architecture Model," *Remote Sens.*, vol. 16, no. 2, p. 380, Jan. 2024, doi: 10.3390/rs16020380.
26. Y. Zhao, Q. Liu, H. Tian, B. W.-K. Ling, and Z. Zhang*, "DeepRED Based Sparse SAR Imaging," *Remote Sens.*, vol. 16, no. 2, p. 212, Jan. 2024, doi: 10.3390/rs16020212.
27. Y. Zhao, Q. Liu, H. Tian, M. Luo, B. W.-K. Ling, and Z. Zhang*, "New convex approaches to general MVDR robust adaptive beamforming problems," *Electron. Lett.*, vol. 59, no. 18, p. e12957, Sep. 2023, doi: 10.1049/ell2.12957.
28. Y. Bai, J. Kang, X. Ding, A. Zhang, Z. Zhang, and N. Yokoya, "LaMIE: Large-Dimensional Multipass InSAR Phase Estimation for Distributed Scatterers," *IEEE Trans. Geosci. Remote Sens.*, vol. 61, pp. 1–15, Nov. 2023, doi: 10.1109/TGRS.2023.3330971.

29. D. Zhao, Z. Zhang*, D. Lu, J. Kang, X. Qiu, and Y. Wu, “CVGG-Net: Ship Recognition for SAR Images Based on Complex-Valued Convolutional Neural Network,” *IEEE Geosci. Remote Sens. Lett.*, vol. 20, pp. 1–5, 2023, doi: 10.1109/LGRS.2023.3316133.
30. M. Shao, Z. Zhang*, J. Li, J. Kang, and B. Zhang, “TADCG: A Novel Gridless Tomographic SAR Imaging Approach Based on the Alternate Descent Conditional Gradient Algorithm With Robustness and Efficiency,” *IEEE Trans. Geosci. Remote Sens.*, vol. 62, pp. 1–13, 2024, doi: 10.1109/TGRS.2023.3345454.
31. Y. Wu, Z. Zhang*, X. Qiu, Y. Zhao, and W. Yu, “MF-JMoDL-Net: A Sparse SAR Imaging Network for Undersampling Pattern Design towards Suppressed Azimuth Ambiguity,” *IEEE Trans. Geosci. Remote Sens.*, vol. 62, pp. 1–18, 2024, doi: 10.1109/TGRS.2024.3397826..
32. G. Zhou, Z. Xu, Y. Fan, Z. Zhang, X. Qiu, B. Zhang, K. Fu* and Y. Wu, “HPHR-SAR-Net: Hyper-pixel High-resolution SAR Imaging Network Based on Nonlocal Total Variation,” *IEEE J. Sel. Top. Appl. Earth Obs. Remote Sens.*, vol. 16, pp. 8595–8608, 2023, doi: 10.1109/JSTARS.2023.3295728.
33. M. Wang, Z. Zhang*, X. Qiu, S. Gao, and Y. Wang, “ATASI-Net: An Efficient Sparse Reconstruction Network for Tomographic SAR Imaging with Adaptive Threshold,” *IEEE Trans. Geosci. Remote Sens.*, vol. 61, pp. 1–18, 2023, doi: 10.1109/TGRS.2023.3268132.
34. R. Shi, Z. Zhang*, X. Qiu, and C. Ding, “A Novel Gradient Descent Least-Squares (GDLSS) Algorithm for Efficient Gridless Line Spectrum Estimation With Applications in Tomographic SAR Imaging,” *IEEE Trans. Geosci. Remote Sens.*, vol. 61, pp. 1–13, 2023, doi: 10.1109/TGRS.2023.3273568.
35. J. Li, Z. Xu, Z. Li, Z. Zhang*, B. Zhang, and Y. Wu, “An Unsupervised CNN-Based Multichannel Interferometric Phase Denoising Method Applied to TomoSAR Imaging,” *IEEE J. Sel. Top. Appl. Earth Obs. Remote Sens.*, vol. 16, pp. 3784–3796, Jul. 2023, doi: 10.1109/JSTARS.2023.3263964.
36. Y. Zhao, Y. Chen, H. Tian, X. Quan, B. W.-K. Ling, and Z. Zhang*, “Wide angle SAR imaging method based on hybrid representation,” *Electron. Lett.*, vol. 59, no. 15, p. e12897, Aug. 2023, doi: 10.1049/ell2.12897.
37. P. Jiang, Z. Zhang*, B. Zhang, and Z. Xu, “A novel TomoSAR imaging method with few observations based on nested array,” *IET Radar, Sonar Navig.*, vol. 17, no. 6, pp. 925–938, Jun. 2023, doi: 10.1049/rsn2.12388.
38. J. Kang*, T. Ji, Z. Zhang, and R. Fernandez-Beltran, “SAR Time Series Despeckling via Nonlocal Matrix Decomposition in Logarithm Domain,” *Signal Processing*, vol. 209, p. 109040, Aug. 2023, doi: 10.1016/j.sigpro.2023.109040.
39. 康健 *, 童风雨, 白雨松, 丁翔, 冀腾宇, and 张柘 *, “基于对数域加性信号分解的时序 SAR 图像相干斑抑制方法,” *雷达学报*, vol. 12, no. 5, pp. 1031–1043, Mar. 2023, doi: 10.12000/JR22242.
40. X. Ding, J. Kang*, Z. Zhang, Y. Huang, J. Liu, and N. Yokoya, “Coherence-Guided Complex Convolutional Sparse Coding for Interferometric Phase Restoration,” *IEEE Trans. Geosci. Remote Sens.*, vol. 60, pp. 1–14, 2022, doi: 10.1109/TGRS.2022.3228279.

41. Z. Zhu, J. Kang*, T. Ji, Z. Zhang, and R. Fernandez-Beltran, "SAR Time-Series Despeckling via Nonlocal Total Variation Regularized Robust PCA," *IEEE Geosci. Remote Sens. Lett.*, vol. 19, pp. 1–5, 2022, doi: 10.1109/LGRS.2022.3227187.
42. Y. Zhao, W. Huang, X. Quan, W.-K. Ling, and Z. Zhang*, "Data-driven sampling pattern design for sparse spotlight SAR imaging," *Electron. Lett.*, vol. 58, no. 24, pp. 920–923, Nov. 2022, doi: 10.1049/ELL2.12650.
43. Z. Xu, B. Zhang, Z. Zhang*, M. Wang, and Y. Wu, "Nonconvex-Nonlocal Total Variation Regularization Based Joint Feature-Enhanced Sparse SAR Imaging," *IEEE Geosci. Remote Sens. Lett.*, vol. 19, pp. 1–1, 2022, doi: 10.1109/lgrs.2022.3222185.
44. 吕泽鑫, 仇晓兰 *, 张柘, and 丁赤飏, "极化干涉 SAR 面向城区不同处理模式的误差影响分析," *雷达学报*, 2022, doi: 10.12000/JR22059.
45. Z. Xu, G. Zhou, B. Zhang, Z. Zhang* and Y. Wu, "Sparse Regularization Method Combining SVA for Feature Enhancement of SAR Images," *Electronics Letters*, Jun. 2022, doi: 10.1049/ell2.12509.
46. 赵曜, 许俊聪, 全相印, 崔莉, and 张柘 *, "基于稀疏和低秩结构的层析 SAR 成像方法," *雷达学报*, vol. 11, no. 1, pp. 52-61, 2022.
47. 杜邦, 仇晓兰, 张柘, 雷斌, and 丁赤飏, "基于扰动的结合 Off-grid 目标的层析 SAR 三维成像方法," *雷达学报*, vol. 11, no. 1, pp. 62-70, 2022.
48. Z. Zhang*, B. Zhang, C. Jiang, X. Liang, L. Chen, W. Hong and Y. Wu, "The First Airborne Experiment of Sparse Microwave Imaging: Prototype System Design and Result Analysis," Available: <http://arxiv.org/abs/2110.10675>.
49. Z. Zhang*, Y. Wang, and Z. Tian, "Efficient Two-Dimensional Line Spectrum Estimation Based on Decoupled Atomic Norm Minimization," *Signal Processing*, Vol. 163, pp. 95-106, 2019.
50. 张柘 *, 张冰尘, 洪文, and 吴一戎, "结合 MD 自聚焦算法与回波模拟算子的快速稀疏微波成像误差补偿算法," *雷达学报*, vol. 5, no. 1, pp. 25-34, 2016.
51. B. Zhang, Z. Zhang*, C. Jiang, Y. Zhao, W. Hong and Y. Wu, "System Design and First Airborne Experiment of Sparse Microwave Imaging Radar: Initial Results," *Science China Information Sciences (Series F)*, vol. 58, no. 6, 2015.
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