

叶修竹 | 论文列表

共发表1部译著，80余篇论文，其中31篇SCI检索论文已收录。国际会议特邀报告7次。近期论文多围绕电磁逆散射成像算法研究及医疗成像系统。

SCI论文 *为通信作者

1. **X. Ye***, N. Du, D. Yang, X. Yuan, R. Song, S. Sun, D. Fang, “Application of generative adversarial network-based inversion algorithm in imaging two-dimensional lossy biaxial anisotropic scatterer”, *IEEE Transactions on Antennas and Propagation*, Vol 70, issue 9, pp.8262-8275, Sep. 2022
2. R. Song*, Y. Huang, **X. Ye***, K. Xu, C. Li, X. Chen, “Learning-Based Inversion Method for Solving Electromagnetic Inverse Scattering with Mixed Boundary Conditions”, *IEEE Transactions on Antennas and Propagation*, Vol.70, Issue 8, pp. 6218 – 6228, 2022
3. X. Yuan, H. Zhou*, **X. Ye***, R. Zhang, M. Chen, X. Zhang, W. Li, X. Chen, L. Li, Y. Huang, G. Wang, D. Fang, “Impact of Power Spectrum in Geometrical Coding on the Scattering of Random Electromagnetic Coding Metasurface”, *IEEE Transactions on Antennas and Propagation*, Vol.70, issue 5, pp. 3489-3494, 2022.
4. X. Yuan, Z. He, **X. Ye***, M. Chen*, Y. Li, W. Li, R. Zhang, Y. Huang, “Invisible electromagnetic Huygen’s metasurface operational in wide frequency band and its experimental validation”, *IEEE Transactions on Antennas and Propagation*, Vol.69, issue 6, pp. 3341-3348, 2021.
5. **X. Ye**, Y. Bai, R. Song, K. Xu, J. An, “An Inhomogeneous Background Imaging Method Based on Generative Adversarial Network”, *IEEE Transactions on Microwave Theory and Techniques*, Vol. 68, Issue11, 2020.
6. **X. Ye**, N. Zhang, K. Xu, K. Agarwal, M. Bai, D. Liu, X. Chen, “Application of Subspace-Based Distorted-Born Iteration Method in Imaging Biaxial Anisotropic Scatterer”, *IEEE Transactions on Computational Imaging*, Vol.6, 2020.
7. C. Fang, **X. Ye***, Y. Zhang, Q. Wang, N. Zhang, H. Jiang and M. Bai, “Investigation of the RCS for finite bandpass frequency selective surface”, *Applied Computational Electromagnetics Society Journal*, Vol.31, Issue 6, 2019.
8. R. Shen, **X. Ye***, J. Xie, Z. Chen, C. Jin, "A W-Band Circular Box-horn Antenna Array Radiating Sum and Difference Beams with Suppressed Sidelobe", *IEEE Transactions on Antennas and Propagation*, Vol. 67, Issue 9, pp. 5934-5942, 2019.
9. **X. Ye*** and X. Chen, “Subspace-based distorted-Born iterative method for solving inverse scattering problems”, *IEEE Transactions on Antennas and Propagation*, Vol. 65, no.12, pp. 7224 – 7232, Dec. 2017.
10. R. Shen, **X. Ye*** and J. Miao, “Design of a Multimode Feed Horn Applied in a Tracking Antenna”, *IEEE Transactions on Antennas and Propagation*, Vol.65, no. 6, pp.2779-2788, Jun. 2017.
11. X. Fang, M. Bai, **X. Ye***, Z. Zheng “Ultra-broadband microwave frequency down-conversion based on optical frequency comb”, *Optics Express* 23, Vol.13, pp.17111-17119, Nov. 2015.
12. **X. Ye**, L. Poli, G. Oliver, Y. Zhong, K. Agarwal, A. Massa, X. Chen* “Multi-resolution subspace-based optimization method for solving three-dimensional inverse scattering problems”, *Journal of the Optical Society of America A*, Vol. 31, No. 11, pp. 2218-2226, Jun. 2015.

13. **X. Ye***, R. Song, X. Chen, "Application of T-matrix method in solving mixed boundary separable obstacle problem", *Optics Express*, Vol. 22, Issue 13, pp. 16273-16281, Jun. 2014.
14. **X. Ye***, X. Chen, Y. Zhong, R. Song, "Simultaneous Reconstruction of Dielectric and Perfectly Conducting Scatterers Via T-Matrix Method", *IEEE Transactions on Antennas and Propagation*, Vol. 61, no. 7, pp. 3774-3781, Jul. 2013.
15. **X. Ye***, R. Song, K. Agarwal, X. Chen, "Electromagnetic imaging of separable obstacle problem", *Optics Express*, Vol. 20, Issue 3, pp. 2206-2219, Jan. 2012.
16. **X. Ye**, Y. Zhong, X. Chen*, "Reconstructing perfectly electric conductors by subspace-based optimization method with continuous variables", *Inverse Problems*, Vol. 27, no. 5, 055011, May 2011.
17. **X. Ye**, Y. Zhong, K. Agarwal, X. Chen*, "Subspace-based optimization method for reconstructing perfectly electric conductors", *Progress in Electromagnetics Research*, Vol. 100, pp. 119-128, 2010.
18. R. Song, **X. Ye**, X. Chen*, "Reconstruction of scatterers with four different boundary conditions by T-matrix method", *Inverse Problems in Science and Engineering*, Vol. 23, Issue 4, pp. 601-616, May 2015.
19. K. Xu*, Y. Liu, L. Dong, L. Peng, S. Chen, F. Shen, **X. Ye**, X. Chen and G. Wang, "Printed multi-band compound meta-loop antenna with hybrid-coupled SRRs", *IET Microwave Antennas & Propagation*, Vol.12, no.8, pp.1382-1388, 2018.07
20. Y. Chu, K. Xu*, Y. Zhong, **X. Ye**, T. Zhou, X. Chen, G. Wang, "Fast Microwave Through Wall Imaging Method With Inhomogeneous Background Based on Levenberg-Marquardt Algorithm", *IEEE Transactions on Microwave Theory and Techniques*, Vol. 67, Issue, 3, pp. 1138-1147, Mar. 2019
21. B. Zhang, C. Jin*, **X. Ye**, R. Mittra, "Dual-Band Dual-Polarized Quasi-Elliptic Frequency Selective Surfaces," *IEEE Antennas and Wireless Propagation Letters*, Vol.18, Issue 2, pp.298-302, Feb. 2019
22. K. Xu*, L. Wu, **X. Ye**, X. Chen, "Deep Learning-Based Inversion Methods for Solving Inverse Scattering Problems With Phaseless Data", *IEEE Transactions on Antennas and Propagation*, Vol. 68, Issue 11, 2020.
23. Z. Chen*, C. Shen, H. Liu, **X. Ye**, L. Qi, Y. Yao, J. Yu, X. Chen, "Millimeter-Wave Rectangular Dielectric Resonator Antenna Array With Enlarged DRA Dimensions, Wideband Capability, and High-Gain Performance," *IEEE Transactions on Antennas and Propagation*, Vol. 68, Issue 4, 2020.
24. Q. Zhang*, D. Ma, X. Tang, G. Zhang, Z. Zhang, K. Xu, **X. Ye**, Y. Sun, "1-D Frequency Diverse Single-Shot Guided-Wave Imaging using Surface-Wave Goubau Line", *IEEE Transactions on Antennas and Propagation*, Vol.68, Issue 4, pp.3194-3206, 2020.
25. L. Zhang, K. Xu*, R. Song, **X. Ye**, G. Wang, X. Chen, "Learning-Based Quantitative Microwave Imaging with a Hybrid Input Scheme", *IEEE Sensors Journal*, Vol. 20, pp.15007-15013, Dec. 2020
26. Y. Huang, R. Song*, K. Xu, **X. Ye**, C. Li, X. Chen, "Deep Learning-Based Inverse Scattering With Structural Similarity Loss Functions", *IEEE Sensors Journal*, Vol.21, pp.4900-4907, 2021

27. R. Song*, Y. Huang, K. Xu, **X. Ye**, C. Li, X. Chen, “Electromagnetic Inverse Scattering With Perceptual Generative Adversarial Networks,” *IEEE Transactions on Computational Imaging*, Vol 7, pp.689-699, June 2021
28. K. Xu*, C. Zhang, **X. Ye**, R. Song, “Fast Full-Wave Electromagnetic Inverse Scattering Based on Scalable Cascaded Convolutional Neural Networks”, *IEEE Transactions on Geoscience and Remote Sensing*, Vol 60, July 2021
29. P. Zhao, L. Liu, K. Xu*, **X. Ye**, S. Chen, G. Wang, C. Chan, “An Improved Subspace-Regularized DBIM-MLGFIM Method for Three-Dimensional Inverse Scattering Problems”, *IEEE Transactions on Antennas and Propagation*, Vol.69, Issue 5, pp. 2798 – 2809, May 2021
30. Y. Zhou, N. Leng, Z. Wei, **X. Ye**, M. Bai, X. Chen*, “A Systematic Material Characterization Method via Near-Field Scanning Microwave Microscopy”, *IEEE Transactions on Microwave Theory and Techniques*, Vol. 70, 2022
31. D. Yu, **X. Ye**, X. Pan*, X. Sheng, “Fourier Bases-Expansion for Three-Dimensional Electromagnetic Inverse Scattering Problems”, *IEEE Geoscience and Remote Sensing Letters*, Vol 19, 2022

Oral Presentations

Seminar and Talk

- 1 “Microwave biomedical imaging with inhomogeneous background”, at Southern University of Science and Technology, Shenzhen, China, Nov. 2017
- 2 “On Imaging Methods of Material Structures with Different Boundary Conditions”, at Fresnel Institute, Marseille, France, Mar. 2017
- 3 “Breast cancer imaging - using the microwave inverse scattering method”, at L2S, Centrale Supélec, Paris, France, Mar. 2017

Conference Oral Presentations

1. (Invited Talk) D. Yang, **X. Ye***, “Application of Generative Adversarial Network-based Inversion Algorithm in Imaging Two-dimensional Lossy Biaxial Anisotropic Scatterer”, *Photonics & Electromagnetics Research Symposium*, Hangzhou, China, April 2022.
2. (Invited talk) **X. Ye** and X. Chen, “Learning approach to inverse scattering problems with special boundary conditions and inhomogeneous background, *the Applied Computational Electromagnetics Society Symposium*, Chengdu, China, Jul. 2021
3. (Invited talk) **X. Ye**, “Learning Approach to inverse scattering problem for anisotropic scatterer imaging”, *Cross Strait Quad-Region Radio Science and Wireless Technology Conference*, Shenzhen, China, October 2021
4. (Invited talk) **X. Ye**, “An inhomogeneous background microwave imaging algorithm as applied in bio-imaging”, *2019 International Conference on Microwave and Millimeter Wave Technology*, Guangzhou, May 2019.
5. (Invited talk) H. Liu and **X. Ye***, “Reconstruction of Dielectric Parameters of Human Tissues Using Distorted Born Iterative Method”, *2019 IEEE*

- International Conference on Computational Electromagnetics*, Shanghai, Mar. 2019.
6. (Invited talk) R. Shen, **X. Ye***, J. Xie, “A wideband design of rectangular TE₁₀ to circular TE₀₁ mode transducer”, *IEEE 7th Asia-Pacific Conference on Antennas and Propagation*, Auckland, New Zealand, Aug. 2018.
 7. (Invited Talk) **X. Ye** and X. Chen, “A distorted-Born subspace-based optimization method”, *Progress in Electromagnetics Research Symposium 2016*, Shanghai, China, Aug. 2016.
 8. N. Du and **X. Ye**, “Foreign Matter Detection System in Human Tissue Based on Inverse Scattering Approach”, *IEEE International Microwave Biomedical Conference*, Singapore, May 2022
 9. Y. Guo, N. Du and **X. Ye**, “Real Time Monitoring of Vital Signs Based on Miniaturized Ultra-Wideband Radar”, *IEEE International Microwave Biomedical Conference*, Singapore, May 2022
 10. N. Du, D. Yang, **X. Ye**, “Human Arm Imaging System Based on Machine Learning Inverse Scattering Approach”, *Photonics & Electromagnetics Research Symposium*, Hangzhou, China, April 2022.
 11. **X. Ye**, N. Zhang, and X. Chen, “The Subspace-based Distorted-Born Iteration Method TE and Anisotropic Case”, *Progress in Electromagnetics Research Symposium 2018*, Toyama, Japan, Aug. 2018.
 12. H. Liu, X. Shang, **X. Ye***, “Breast Cancer Detection Using Synthetic Aperture Radar Imaging and Distorted Born Iterative Method”, *the Applied Computational Electromagnetics Society Conference*, Beijing, China, Jul. 2018.
 13. C. Fang, N. Zhang, H. Jiang, Y. Zhang, M. Bai and **X. Ye***, “Investigation of the RCS for a finite bandpass frequency selective surface”, *the Applied Computational Electromagnetics Society Conference*, Beijing, China, Jul. 2018.
 14. N. Zhang, Q. Wang, H. Jiang, M. Bai, Y. Zhang and **X. Ye***, “An Exploration of Finite Frequency Selective Surface Fringe Effect to Wave-transparent Mechanism”, *the Applied Computational Electromagnetics Society Conference*, Beijing, China, Jul. 2018.
 15. H. Jiang, K. Xu, M. Bai* and X. Ye, “A Multiband Folded Loop Antenna for Metal-Rimmed Smartphones”, *the Applied Computational Electromagnetics Society Conference*, Beijing, China, Jul. 2018.
 16. K. Xu and **X. Ye***, “A comparison of the MR-TSOM and DBIM in reconstructing 2D model of human breast”, *2018 Cross Strait Quad-Region Radio Science and Wireless Technology Conference*, Xuzhou, China, Jul. 2018.
 17. Q. Wang, Y. Tong, Y. Zhang, J. Wang, X. Liu, **X. Ye**, S. Lu, “Effect of Cylindrical and Spherical Conformation on Transmission Characteristics of FSS”, *2018 12th International Symposium on Antennas, Propagation and EM Theory, ISAPE 2018 – Proceedings*, Dec. 2018.
 18. K. Xu, **X. Ye**, Y. Zhong, X. Chen, “A Fast Algorithm for Solving the Inverse Scattering Problems with Inhomogeneous Background”, *2018 IEEE*

- International Conference on Computational Electromagnetics, ICCEM 2018*, Oct., 2018
19. M. Serhir, M. Lambert, D. Lesselier, **X. Ye**, “On the Electromagnetic Probing of Man-Made and Natural Buried Structures”, *2018 International Conference on Microwave and Millimeter Wave Technology, ICMMT 2018 - Proceedings*, Dec., 2018,
 20. Y. Liu, K. Xu, S. Chen, P. Zhao, G. Wang, **X. Ye**, “A Microwave Sensor Based on Split Ring Resonators for Differential Measuring Permittivity”, *Proceedings of the 2018 IEEE 7th Asia-Pacific Conference on Antennas and Propagation, APCAP 2018*, p 241-242, Nov., 2018
 21. W. Yu, Z. Qiao, **X. Ye***, M. Bai, “A Modified Method for Measuring the Faraday Rotation Angle”, *Progress in Electromagnetics Research Symposium*, 2018-August, p706-709, Dec. 31, 2018
 22. C. Wang, **X. Ye**, X. Chen, X. Xin, B. Liang, Z. Li, A. Hu, J. Miao, “A 3.5-8 GHz Analog Complex Cross-Correlator for Interferometric Passive Millimeter-Wave Security Imaging Systems”, *Progress in Electromagnetics Research Symposium*, 2018-August, p 706-709, Dec. 31, 2018.
 23. B. Niu, D. Xia, Y. Xing, **X. Ye**, M. Bai, “Analysis and Synthesis of Large Scale Conformal Antenna Based on Hybrid Layout,” *Progress in Electromagnetics Research Symposium*, 2018-August, p 706-709, Dec. 31, 2018.
 24. X. Chen, **X. Ye**, C. Wang, A. Hu, J. Miao, “A Ka Band Multi-Channel Integrated Receiver for Passive Millimeter Wave Imaging System,” *Progress in Electromagnetics Research Symposium*, 2018-August, p 706-709, Dec. 31, 2018.
 25. K. Xu and **X. Ye**, “A comparison of the MR-TSOM and DBIM in reconstructing 2D model of human breast”, *Sixth Asia-Pacific Conference on Antennas and Propagation*, Xi’an, China, Oct. 2017.
 26. **X. Ye**, “Simultaneous Imaging of the Conductor and Dielectric Scatterer”, The 18th International Symposium on Applied Electromagnetics and Mechanics, Chamonix, Mont-Blanc, France, Sep. 2017
 27. **X. Ye**, “Inverse scattering method in reconstructing different boundary conditions”, *Applied Inverse Problems*, Hangzhou, China, June 2017
 28. **X. Ye**, “Electromagnetic Imaging of Wave Impenetrable Objects”, *11th European Conference on Antennas and Propagation (EUCAP)*, Paris, France, Mar. 2017
 29. **X. Ye**, J. Shen, L. Ran and X. Chen, “Inverse Scattering based Through Wall Imaging”, *7th Asia-Pacific International Symposium on Electromagnetic Compatibility & Signal Integrity and Technical Exhibition*, Shenzhen, China, May 2016.
 30. **X. Ye** and X. Chen, “Two-dimensional inverse scattering problems with four different boundary conditions”, *Progress In Electromagnetics Research Symposium 2015*, Prague, Czech, July 2015.
 31. **X. Ye**, “Imaging the PEC scatterer via T-matrix based inversion method”, *2015 IEEE Symposium on Antennas and Propagation and URSI North American*

- Radio Science Meetings*, Vancouver, Canada, July 2015.
32. **X. Ye**, “Simultaneous reconstruction of the PEC and dielectric scatterers in through-wall imaging application”, *9th International Conference on Computational Physics*, Singapore, Jan. 2015.
 33. **X. Ye**, “Simultaneous reconstruction of the PEC and dielectric scatterers via inverse scattering method”, *Progress in Electromagnetics Research Symposium 2014*, Guangzhou, China, July 2014.
 34. (invited) X. Chen and **X. Ye**, “Through-wall imaging: inverse scattering approach”, *Asia-Pacific Conference on Antennas and Propagation*, Harbin, China, July 2014.
 35. **X. Ye** and X. Chen “Electromagnetic inverse scattering of perfectly electric conductors by the subspace-based optimization method”, *Progress In Electromagnetics Research Symposium 2011*, Suzhou, China, Sept. 2011.
 36. **X. Ye** and X. Chen, “The investigation of the regularization term in the continuous-parameter subspace-based optimization method in reconstructing PEC objects”, *Cross Strait Quad-Regional Radio Science and Wireless Technology Conference*, Harbin, China, July 2011.

Posters

37. H. Jiang, R. Shen and **X. Ye**, “A broadband antenna array for microwave imaging application”, *Progress In Electromagnetics Research Symposium 2017*, Singapore, Nov. 2017.
38. J. Li and **X. Ye**, “Electromagnetic two-dimensional scattering experiment for verifying inverse scattering problem”, *Progress in Electromagnetics Research Symposium 2017*, Singapore, Nov. 2017.
39. R. Song, **X. Ye**, X. Chen, “Reconstruction of electromagnetic scatterers with different boundary conditions”, *Progress in Electromagnetics Research Symposium 2013*, Taipei, Taiwan, Mar. 2013.
40. **X. Ye** and X. Chen, “Investigation of the optimization progress of the subspace-based optimization method in reconstructing perfect electric conductors”, *Asia-Pacific Microwave Conference*, Melbourne, Australia, Dec. 2011.
41. **X. Ye** and X. Chen, “The role of regularization parameter of subspace-based optimization method in solving inverse scattering problems”, *Asia-Pacific Microwave Conference*, Singapore, Dec. 2008.

Invention Patent (Chinese)

1. 2018108535703 Slot array antenna and its power division network based on substrate integrated waveguide
(Granted)
2. 202210114750.6 A Background Clutter Suppressing Method for Through wall Radar based on MIMO Antenna
3. 202210114749.3 A Multi targets Imaging Method based on Miniaturized FMCW Through wall Radar
4. 202210401949.7 A real-time microwave human body penetrating imaging

method based on deep learning algorithm

Book

Co-translator for Chinese translation of “Microwave and Millimeter-Wave Remote Sensing for Security Applications”, *Machinery Industry Press, 2015*, ISBN: 9787111499275