

Journal Papers

1. N. Wu, G. Ding, Y. Fu, J. Zhang, and **D. He**, "Toward Space–Air–Ground Information Networks: Next Frontier for Wireless Communications," *Space Sci. Technol.*, 2025. (*Editorial*)
2. J. Sun, **D. He**, H. Hou, P. Du, C. Fang, C. Zhang, W. Xu, D. Wang, and Y. Huang, "Cloud–Edge–End CF-MMIMO for UAV Swarms: Integrated Sensing and Robust Interference Detection in Perception Networks," *IEEE Trans. Netw. Sci. Eng.*, 2025.
3. Z. Kang, **D. He**, H. Wang, W. Yuan, and T. Q.S. Quek, "Tensor-Based Unsourced Random Access for LEO Satellite Internet of Things," *IEEE Trans. Wireless Commun.*, 2025.
4. M. Yuan, **D. He**, W. Yuan, H. Yin, and H. Wang, "Near-Field Integrated Sensing and Communication: SPEB Analysis and Hybrid Beamforming Design," *IEEE Trans. Cognit. Commun. Netw.*, 2025.
5. Y. Huang, T. Mao, **D. He**, Q. Wang, C. Han, and Z. Wang, "Channel-Adaptive Autoencoder Architecture for Terahertz Aerospace Communications," *IEEE Trans. Veh. Technol.*, 2025.
6. Q. Yu, D. Mishra, H. Wang, D. He, J. Yuan, and M. Matthaiou, "System-Level Performance Analysis of LoRa-Based LEO Satellite Constellations for IoT Communications," *IEEE Wireless Commun. Lett.*, vol. 14, no. 10, pp. 3279-3283, Oct. 2025.
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8. M. Yuan, **D. He**, H. Yin, H. Wang, F. Liu, Z. Wang, and T. Q.S. Quek, "Hybrid Beamforming for mmWave Integrated Sensing and Communication with Multi-static Cooperative Localization," *IEEE Trans. Wireless Commun.*, 2025.
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11. **D. He**, W. Yuan, J. Wu, and R. Liu, "Ubiquitous UAV Communication Enabled Low-Altitude Economy: Applications, Techniques, and 3GPP's Efforts," *IEEE Netw.*, 2025.
12. Q. Yu, D. Mishra, H. Wang, **D. He**, J. Yuan, and M. Matthaiou, "Towards LoRa-Based LEO Satellite IoT: A Stochastic Geometry Perspective," *IEEE Internet Things J.*, vol. 12, no. 15, pp. 26415-26429, 01 Aug. 2025.
13. Z. Kang, **D. He**, H. Wang, Z. Wang, and Z. Han, "Tensor-Based Unified Joint Channel Estimation and Active Device Detection Scheme for High-Mobility Grant-Free Random Access Scenarios," *IEEE Internet Things J.*, vol. 12, no. 14, pp. 26415-26429, 15 Jul. 2025.
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15. T. Yang, **D. He**, H. Hou, H. Wang, H. Yin, Y. Huang, Z. Wang, and T. Q.S. Quek, "A Unified Tensor-Based Joint AUD and ISAC Parameter Estimation With Large-Scale User Access," *IEEE Trans. Cognit. Commun. Netw.*, vol. 11, no. 5, pp. 3047-3061, Oct. 2025.
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Conference Papers

1. Z. Wu, Y. Miao, **D. He**, Y. Cao, H. Wang, and C. Wang, "Two-Step-Search Based Spatio-Temporal Resource Allocation for Task-Oriented Single-Beam Directional Wireless Networks," *2025 6th International Conference on Electronic Communication and Artificial Intelligence* (ICECAI), Chengdu, China, 2025, pp. 132-138.
2. M. Yuan, **D. He**, H. Yin and H. Wang, "Hybrid Beamforming for Millimeter-Wave ISAC System with Multi-Static Cooperative Localization," *2025 IEEE International Conference on Communications* (ICC), Montreal, QC, Canada, 2025, pp. 6729-6734.
3. Q. Yu, D. Mishra, H. Wang, **D. He**, J. Yuan and M. Matthaiou, "Closed-Form Access Probability Analysis for LoRa-Based LEO Satellite IoT," *2025 IEEE International Conference on Communications* (ICC), Montreal, QC, Canada, 2025, pp. 3193-3199.
4. Y. Chen, **D. He**, S. Li, and T. Mao, "Codebook Design for Holographic MIMO: Near-Field Prospects and Road to Standardization," *2025 International Wireless Communications and Mobile Computing* (IWCMC), Abu Dhabi, United Arab Emirates, 2025, pp. 1084-1090. (**Best Paper Award**)
5. Y. Cao, **D. He**, T. Yang, H. Wang, and R. Jiang, "Low-Complexity Joint Range and Velocity Estimation for OFDM-Based Integrated Sensing and Communication," *2025 International Wireless Communications and Mobile Computing* (IWCMC), Abu Dhabi, United Arab Emirates, 2025, pp. 1047-1052. (**Best Paper Award**)
6. F. Zhao, Z. Pan, X. Xia, M. Yuan, **D. He**, and H. Hou, "Beamforming Optimization for STAR-RIS-Assisted Integrated Sensing and Communication," *2025 International Wireless Communications and Mobile Computing* (IWCMC), Abu Dhabi, United Arab Emirates, 2025, pp. 740-745.
7. L. Li, C. Yang, H. Li, and **D. He**, "DRL-Based Service Function Chains Embedding Through Network Function Virtualization in STINs," *2024 IEEE International Conference on Signal, Information and Data Processing* (ICSIDP), Zhuhai, China, 2024, pp. 1-5.
8. G. Jiao, R. Jiang, Y. Peng, and **D. He**, "Parameter Estimation of Sensing Targets in OTFS-ISAC: Challenges and Applications," *2024 IEEE International Conference on Signal, Information and Data Processing* (ICSIDP), Zhuhai, China, 2024, pp. 1-6.
9. T. Yang, **D. He**, H. Hou, H. Wang, Y. Huang, Z. Wang, and T. Q.S. Quek, "A Unified Tensor-Based Joint Communication and Sensing Parameter Estimation for ISAC with Large-Scale User Access," *2024 IEEE International Conference on Signal, Information and Data Processing* (ICSIDP), Zhuhai, China, 2024, pp. 1-6. (**Best Paper Award**)
10. **D. He** and H. Hou, "UAV-Assisted Legitimate Wireless Surveillance: Performance Analysis and Optimization," *2024 IEEE International Conference on Unmanned Systems* (ICUS), Nanjing, China, 2024, pp. 1975-1979.
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15. Y. Zhan, **D. He**, S. An, and H. Wang, "Improved Impulsive Noise Suppression Method: Joint Myriad Detection and Gaussian Fitting Robust Local Weighted Smoothing," *2023 9th International Conference on Computer and Communications (ICCC)*, Chengdu, China, 2023, pp. 752-756.
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