



董淑琴

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工作经历

香港城市大学，太赫兹及毫米波全国重点实验室，博士后研究员	2025.02 – 至今
• 近场生物雷达系统时空分辨性能优化及感知应用（合作导师：郭永新教授）	
香港城市大学深圳研究院宠物智能感知与健康管理中心，高级研究员	2026.09 – 至今
宠安科技（深圳）有限公司，首席科学家兼联合创始人	2026.07 – 至今
华为技术有限公司，2012实验室，算法工程师	2020.05 - 2021.04
• 基于高精度麦克风的微小音频缺陷检测方案研发	

教育背景

上海交通大学 电子信息 工学博士	2021.04 - 2024.12
• 射频异质异构全国重点实验室，毛军发院士团队，导师：顾昌展副教授	
新加坡国立大学 CSC联合培养博士	2023.12 - 2024.05
• 电子工程与计算机学院（ECE），导师：郭永新教授	
浙江大学（保送）电子科学与技术 工学硕士	2017.09 - 2020.03
• 多源感知与机器智能研究所及先进射频研究中心，导师：冉立新教授	
西安电子科技大学 电子信息工程 工学学士	2013.09 - 2017.06

研究方向

- 微波/毫米波雷达系统，及细粒度医学信息感知
- 近场雷达系统时空分辨性能优化
- 电磁波与生物组织的交互作用研究
- 雷达解调算法设计

项目经历

HKtech300 Seed Fund (SF202503086)，项目负责人	2025.07 - 2026.02
• 基于生物雷达的健康可视化监测仪，香港城市大学主办	
HKSTP IDEATION Program (Partner-25-1441)，项目负责人	2025.08 - 2026.03
• 服务于智慧农业的生物雷达动物体征监测，香港科学园主办	
太平洋保险-上海交通大学联合实验室项目，参与	2022- 2023
• 基于雷达的睡眠分期及睡眠异常监测	

所获荣誉

融湾2026国际人才项目创新创业路演赛一等奖
[第十二届香港大学生创新与创业竞赛一等奖（Team Leader）](#)
IMBioC 2025 Young Professionals Competition三等奖
2024 年上海市优秀毕业生
2024年中国科协青年人才托举工程博士生专项计划（首届）
2024 IEEE Transactions on Instrumentation and Measurement Society Outstanding Reviewer
2023 IEEE MTT-S Graduate Fellowship for Medical Applications（国内首次）
2019年度、2022年度和2024年度研究生国家奖学金

2022-2023 连续两年获得IEEE MTT-S IWS FLASH Competition Best Paper Award

2022年国际人工智能大会CICAI Best Demo Runner-up Award

2023第一届全国数字健康创新应用大赛医学人工智能主题赛全国一等奖(排名第3)

代表性期刊论文

1. **Shuqin Dong**, Kun Duan, Alex M. H. Wong* and Yongxin Guo*. "Contactless Jugular Venous Pulse Waveform Detection With a Metalens-Integrated Near-Field Bioradar", Under review, *IEEE Transactions on Instrument and Measurement*, 2026.
 2. **Shuqin Dong**, Wenren Zhou, Xuelin Kong, Shengjie Pan, Bo Wang and Yongxin Guo*, "Remote Asynchronous Phase Detection of Thoraco-abdominal Breathing: a Novel Human Backscattering Model with FMCW Radar," *IEEE Transactions on Microwave Theory and Techniques*, Online access, Feb. 2026.
 3. **Shuqin Dong**, Li Wen, Qing Cao, Kang Chen, Changzhan Gu* and Junfa Mao, "A Reliable Framework for Contactless Velocity Cardiogram Detection With Interferometric Biomedical Radar," *SCIENCE CHINA Information Sciences*, vol. 69, no. 2, pp. 122302, Jan. 2026.
 4. **Shuqin Dong**, Li Wen, Yangtao Ye, Zhi Zhang, Yi Wang, Zhiwei Liu, Qing Cao, Yuchen Xu, Changzhi Li, Changzhan Gu*, "A Review on Recent Advancements of Biomedical Radar for Clinical Applications," *IEEE Open Journal of Engineering in Medicine and Biology*, vol. 5, pp. 707-724, May 2024. (Invited paper)
 5. **Shuqin Dong**, Yuchen Li, Changzhan Gu*, and Junfa Mao, "Robust Cardiac Timing Detection Technique with Vectors Analytic Demodulation in Doppler Cardiogram Sensing," *IEEE Transactions on Microwave Theory and Techniques*, vol. 72, no. 8, pp. 4866-4877, Aug. 2024.
 6. **Shuqin Dong**, Li wen, Yuchen Li, Jingyun Lu, Zhi Zhang, Chengmei Yuan, Changzhan Gu*, and Junfa Mao, "Remote Respiratory Variables Tracking with Biomedical Radar-based IoT System During Sleep," *IEEE Internet of Things Journal*, vol. 11, no. 11, pp. 19937-19948, 1 June 2024.
 7. **Shuqin Dong**, Yuchen Li, Jingyun Lu, Zhi Zhang, Changzhan Gu*, and Junfa Mao, "Accurate Detection of Doppler Cardiograms in the Presence of Respiration with a Novel PRF Algorithm," *IEEE Transactions on Microwave Theory and Techniques*, vol. 71, no. 1, pp. 71-82, Jan. 2023.
 8. **Shuqin Dong**, Zhi Zhang, Changzhan Gu*, Jun-Fa Mao, "Contactless Measurement of Human Systolic Time Intervals based on Differential Doppler Cardiogram in Clinical Environment," *IEEE Microwave and Wireless Components Letters*, vol. 32, no. 6, pp. 796-799, June 2022. (selected as **Top50 Papers** of 2022 IEEE International Microwave Symposium (IMS), converted to MWCL).
 9. **Shuqin Dong**, Yi Zhang, Chao Ma, Chenngkai Zhu, Zhitao Gu, Qinyi Lv, Bin Zhang, Changzhi Li, Lixin Ran*. Doppler cardiogram: A remote detection of human heart activities, *IEEE Transactions on Microwave Theory and Techniques*, vol. 68, no. 3, pp. 1132-1141, March 2020.
 10. Zhi Zheng, **Shuqin Dong**, Haotian Shi, Bo Wang, Zhiying Zhou, and Yongxin Guo*" Contactless High Dynamic-Range Blood Pressure Estimation by Modified Up-Down Stroke Time based on Doppler Wrist Pulse," *IEEE Transactions on Microwave Theory and Techniques*, vol. 73, no. 8, pp. 4273-4285, Aug. 2025 (共同一作)
 11. Yuchen Li, **Shuqin Dong**, Changzhan Gu*, "Feel Your Heartbeat Across Space: Radar-Based Cardiac Activity Monitoring for Healthcare Applications," *IEEE Microwave Magazine*, vol. 25, no. 12, pp. 91-111, Dec. 2024. (共同一作)
- *: Corresponding author

代表性会议论文

1. **Shuqin Dong**, K. Duan, Alex M. H. Wong and Y. Guo. "Radar Collar: A 24-GHz Near-Field Bioradar System for Continuous Canine Pulse Monitoring" APMC 2026 **Late Breaking News (LBN)** Paper.
2. **Shuqin Dong**, Jingyun Lu, Yuchen Li, Caojun Ji, Jingxian Chen, Menghan Wang, Changzhan Gu*, Chengmei Yuan, Junfa Mao, "Accurate Fast Heartbeat Detection based on Fourier Bessel Series Expansion Technique During Radar-based Sleep Monitor," IEEE MTT-S International Microwave Symposium (IMS), San Diego, Jun. 11-16, 2023.
3. **Shuqin Dong**, Zhi Zhang, Yuchen Li, Jingyun Lu, Hao Wu, Changzhan Gu*, Junfa Mao, "COVID-SENSE: Radar-based Remote Respiratory Disorder Detection in Clinical Environment," 2023 IEEE MTT-S International Wireless Symposium (IWS), Qingdao, China, May 2023. (**FLASH Competition Best Paper Award**).
4. **Shuqin Dong**, Changzhan Gu*, and Jun-Fa Mao, "Contactless Cardiac RR Intervals Estimation in Radar-Based Cardiogram Detection," Asilomar Conference on Signals, Systems, and Computers, Pacific Grove, California, Oct. 30th - Nov 2nd, 2022. (**Best student paper finalist**)

5. **Shuqin Dong**, Changzhan Gu*, Xiaokang Yang, “Contactless Cardiogram Reconstruction Based on the Wavelet Transform via Continuous-wave Radar,” CAAI International Conference on Artificial Intelligence (CICAI), Beijing, China, August 2022. (**Best Demo Runner-up Award**)
6. **Shuqin Dong**, Li Wen, Changzhan Gu*, Jun-Fa Mao, “Contactless Detection for Heart Sounds based on Doppler Radar Sensor,” 2022 IEEE MTT-S International Wireless Symposium (IWS), Harbin, China, August 2022. (**FLASH Competition Best Paper Award**).

著作章节

Yi Zhang, **Shuqing Dong**, et al. “Hand Gesture Recognition Based on SIMO Doppler Radar Sensors” IET 2019, ISBN, 1785617605, 9781785617607. (共同一作)

发明专利

1. **Shuqin Dong**, Zhaojin Guo, Li Luv, Kai Liu, Yongxin Guo. A WEARABLE ANIMAL VITAL SIGN MONITORING SYSTEM AND METHOD FOR MONITORING A PHYSIOLOGICAL PARAMETER OF AN ANIMAL USING A WEARABLE NEAR-FIELD RADAR SYSTEM, US Provisional Patent Application No. 64/051,411.
2. **董淑琴**; 冉立新. 一种心动图的非接触测量方法. 授权发明专利: CN110115585A, 2019.08.13.

专业活动

- Invited speaker of 2026 CIE International Conference on Radar (RADAR2026), Xi'an, China – High-Precision Microwave Physiological Dynamics Signal Detection: From Far-Field to Near-Field.
- Invited speaker of the 2025 IEEE International Workshop on Electromagnetics (iWEM), Hong Kong, China – A Novel Circuit Design for Direct Current Offset Cancellation in Interferometric Radar System.
- Session Chair during 2025 IEEE MTT-S International Microwave Workshop Series (IMWS-AMP), Wuxi China.
- Speaker of 2023 IEEE/MTT-S International Microwave Symposium (IMS) workshop, San Diego, CA, USA – Biomedical Radars for Monitoring and Diagnosis of Respiratory and Cardiovascular Diseases.
- Reviewer for IEEE Transactions on Circuits and Systems for Video
- Reviewer for IEEE Transactions on Industrial Informatics.
- Reviewer for IEEE Transactions on Microwave Theory and Techniques.
- Reviewer for IEEE Internet of Things Journal.
- Reviewer for IEEE Transactions on Instrument and Measurement.
- Reviewer for IEEE Microwave and Wireless Technology Letters.
- Technical Program member for 2024 IEEE Asilomar Conference on Signals, Systems, and Computers.