Publications

Refereed Conference Publications

1. [**MobiCom'25**] Leming Shen, Qiang Yang, **Yuanqing Zheng**, Mo Li, "AutoIOT: LLM-Driven Automated Natural Language Programming for AIoT Applications", *The 31st Annual International Conference On Mobile Computing And Networking (ACM MobiCom)*, Nov 2025, Hong Kong, China.

2. [**MobiCom'25**] Ruonan Li, Ziyue Zhang, Xianjin Xia, Ningning Hou, Wenchang Chai, Shiming Yu, **Yuanqing Zheng**, Tao Gu, "From Interference Mitigation to Toleration: Pathway to Practical Spatial Reuse in LPWANs ", *The 31st Annual International Conference On Mobile Computing And Networking (ACM MobiCom)*, Nov 2025, Hong Kong, China.

3. [**CCS'25**] Xieyang Sun, **Yuanqing Zheng**, Wei Xi, Zuhao Chen, Zhizhen Chen, Han Hao, Zhiping Jiang, Sheng Zhong, "TEMPEST-LoRa: Cross-Technology Covert Communication", *The 32nd ACM Conference on Computer and Communications Security (CCS)*, October 2025.

4. [**Security'25**] Weiye Xu, Danli Wen, Jianwei Liu, Zixin Lin, **Yuanqing Zheng**, Xian Xu, Jinsong Han, "DiskSpy: Exploring a Long-Range Covert-Channel Attack via mmWave Sensing of μm-level HDD Vibrations", *The 34th USENIX Security Symposium (USENIX Security)*, August 13–15, 2025 Seattle, WA, USA.

5. [**MobiSys'25**] Shiming Yu, Ziyue Zhang, Xianjin Xia, **Yuanqing Zheng**, Jiliang Wang, "Are LoRa Logical Channels Really Orthogonal? Practically Orthogonalizing Massive Logical Channels", *The 23rd ACM International Conference on Mobile Systems, Applications, and Services (ACM MobiSys)*, June 23 - 27, 2025, Anaheim, California, US.

6. [**SenSys'25**] Ningning Hou, Yifeng Wang, Xianjin Xia, Shiming Yu, **Yuanqing Zheng**, Tao Gu, "MoLoRa: Intelligent Mobile Antenna System for Enhanced LoRa Reception in Urban Environments", *The 23rd ACM Conference on Embedded Networked Sensor Systems (ACM SenSys)*, 6-9 May 2025, Irvine, USA.

7. [**SenSys'25**] Leming Shen, Qiang Yang, Xinyu Huang, Zijing Ma, **Yuanqing Zheng**, "GPIoT: Tailoring Small Language Models for IoT Program Synthesis", *The 23rd ACM Conference on Embedded Networked Sensor Systems (ACM SenSys)*, 6-9 May 2025, Irvine, USA.

8. [**INFOCOM'25**] Zheng Wang, Xiaoqi Sun, **Yuanqing Zheng**, Yanwen Wang, "Push the Limit of Acoustic Indoor Fire Monitoring", *The IEEE International Conference on Computer Communications (IEEE INFOCOM)*, 19–22 May 2025, London, United Kingdom.

9. [**SECON'24**] Xiaoqi Sun, Yanwen Wang, Chenwei Zhang, Zheng Wang, Xiaokang Shi, **Yuanqing Zheng**, "LoDiHAR: A Low-Cost Distributed Human Activity Recognition System Based on RFID", *2024 21st Annual IEEE International Conference on Sensing, Communication, and Networking (SECON)*, December 2 - 4, 2024, Phoenix, AZ, USA.

10. [**MobiCom'24**] Shiming Yu, Xianjin Xia, Ningning Hou, **Yuanqing Zheng**, Tao Gu, "Revolutionizing LoRa Gateway with XGate: Scalable Concurrent Transmission across Massive Logical Channels", *The 30th Annual International Conference On Mobile Computing And Networking (ACM MobiCom)*, September 30 - October 4, 2024, Washington, D.C., USA.

11. [**SenSys'24**] Shiming Yu, Xianjin Xia, Ziyue Zhang, Ningning Hou, **Yuanqing Zheng**, "FDLoRa: Tackling Downlink-Uplink Asymmetry with Full-duplex LoRa Gateways", *The 22nd ACM Conference on Embedded Networked Sensor Systems (ACM SenSys)*, November 4-7, 2024, Hangzhou, China.

12. [**ICDCS'24**] Sijie Ji, Lixiang Lian, **Yuanqing Zheng**, Chenshu Wu, "MuSAC: Mutualistic Sensing and Communication for Mobile Crowdsensing", *The 44th IEEE International Conference on Distributed Computing Systems (IEEE ICDCS)*, 23 July 2024 - 26 July 2024, Jersey City, New Jersey, USA.

13. [**MobiSys'24**] Leming Shen, Qiang Yang, Kaiyan Cui, **Yuanqing Zheng**, Xiao-yong Wei, Jianwei Liu, Jinsong Han, "FedConv: A Learning-on-Model Paradigm for Heterogeneous Federated Clients", *The 22nd ACM International Conference on Mobile Systems, Applications, and Services (ACM MobiSys)*, June 3-7, 2024, Tokyo, Japan.

14. [**INFOCOM'24**] Qiang Yang, **Yuanqing Zheng**, "Neural Enhanced Underwater SOS Detection", *The IEEE International Conference on Computer Communications (IEEE INFOCOM)*, 20–23 May 2024, Vancouver, Canada.

15. [**INFOCOM'24**] Kaiyan Cui, Leming Shen, **Yuanqing Zheng**, Fu Xiao, Jinsong Han, "Talk2Radar: Talking to mmWave Radars via Smartphone Speaker", *The IEEE International Conference on Computer Communications (IEEE INFOCOM)*, 20–23 May 2024, Vancouver, Canada.

16. [**SenSys'23**] Qiang Yang, **Yuanqing Zheng**, "AquaHelper: Underwater SOS Transmission and Detection in Swimming Pools", *The 21th ACM Conference on Embedded Networked Sensor Systems (SenSys 2023)*, Nov 2023, Istanbul, Turkiye.

17. [**SenSys'23**] Sijie Ji, Xuanye Zhang, **Yuanqing Zheng**, Mo Li, "Construct 3D Hand Skeleton with Commercial WiFi", *The 21th ACM Conference on Embedded Networked Sensor Systems (SenSys 2023)*, Nov 2023, Istanbul, Turkiye.

18. [**MobiCom'23**] Xianjin Xia, Qianwu Chen, Ningning Hou, **Yuanqing Zheng**, Mo Li, "XCopy: Boosting Weak Links for Reliable LoRa Communication", *The 29th Annual International Conference On Mobile Computing And Networking (ACM MobiCom)*, Oct 2023, Madrid, Spain.

19. [**IPSN'23**] Kaiyan Cui, Qiang Yang, **Yuanqing Zheng**, Jinsong Han, "mmRipple: Communicating with mmWave Radars through Smartphone Vibration", *ACM IPSN*, 2023.

20. [**INFOCOM'23**] Ningning Hou, Xianjin Xia, Yifeng Wang, **Yuanqing Zheng**, "One Shot for All: Quick and Accurate Data Aggregation for LPWANs", *In IEEE INFOCOM*, 2023.

21. [**INFOCOM'23**] Qiang Yang, Kaiyan Cui, **Yuanqing Zheng**, "VoShield: Voice Liveness Detection with Sound Field Dynamics", *In IEEE INFOCOM*, 2023.

22. [**SenSys'22**] Xianjin Xia, Qianwu Chen, Ningning Hou, **Yuanqing Zheng**, "HyLink: Towards High Throughput LPWANs with LoRa Compatible Communication", *The 20th ACM Conference on Embedded Networked Sensor Systems (ACM SenSys)*, 6-9 November 2022, (**Best Paper Candidate in ACM SenSys 2022**).

23. [**MobiCom'22**] Weiye Xu, Wenfan Song, Jianwei Liu, Yajie Liu, Xin Cui, **Yuanqing Zheng**, Jinsong Han, Xinhuai Wang, Kui Ren, "Mask Does Not Matter: Anti-Spoofing Face Authentication using mmWave without On-site Registration", *The 28th Annual International Conference On Mobile Computing And Networking (ACM MobiCom)*, 17-21 Oct 2022.

24. [**INFOCOM'22**] Ningning Hou, Xianjin Xia, **Yuanqing Zheng**, "Don't Miss Weak Packets: Boosting LoRa Reception with Antenna Diversities", *The IEEE International Conference on Computer Communications (IEEE INFOCOM)*, 2-5 May 2022, Virtual Conference.

25. [**INFOCOM'22**] Qiang Yang, **Yuanqing Zheng**, "DeepEar: Sound Localization with Binaural Microphones", *The IEEE International Conference on Computer Communications (IEEE INFOCOM)*, 2-5 May 2022, Virtual Conference.

26. [**MobiCom'21**] Xianjin Xia, Ningning Hou, **Yuanqing Zheng**, Tao Gu, "PCube: Scaling LoRa Concurrent Transmissions with Reception Diversities", *The 27th Annual International Conference On Mobile Computing And Networking (ACM MobiCom)*, 31 January 2022 – 04 February 2022, New Orleans, United States.

27. [**ICPADS'21**] Qianwu Chen, Xianjin Xia, Zhigang Li, **Yuanqing Zheng**, "Collaborative Transmission over Intermediate Links in Duty-Cycle WSNs", *IEEE International Conference on Parallel and Distributed Systems (ICPADS)*, 14-16 Dec 2021, Beijing China.

28. [**UbiComp'21**] Qiang Yang, **Yuanqing Zheng**, "Model-based Head Orientation Estimation for Smart Devices", *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*, September 2021, Virtual Conference.

29. [**INFOCOM'21**] Ningning Hou, Xianjin Xia, **Yuanqing Zheng**, "Jamming of LoRa PHY and Countermeasure", *The IEEE International Conference on Computer Communications (IEEE INFOCOM)*, 10-13 May 2021, Virtual Conference.

30. [**INFOCOM'21**] Kaiyan Cui, Yanwen Wang, **Yuanqing Zheng**, Jinsong Han, "ShakeReader: 'Read' UHF RFID using Smartphone", *The IEEE International Conference on Computer Communications (IEEE INFOCOM)*, 10-13 May 2021, Virtual Conference.

31. [**INFOCOM'21**] Weiye Xu, Jianwei Liu, Shimin Zhang, **Yuanqing Zheng**, Feng Lin, Jinsong Han, Fu Xiao, Kui Ren, "RFace: Anti-Spoofing Facial Authentication Using COTS RFID", *The IEEE International Conference on Computer Communications (IEEE INFOCOM)*, 10-13 May 2021, Virtual Conference, (**Best Paper Candidate in IEEE INFOCOM 2021**).

32. [**ICNP'20**] Ningning Hou, **Yuanqing Zheng**, "CloakLoRa: A Covert Channel over LoRa PHY", *The 28th IEEE International Conference on Network Protocols (IEEE ICNP)*, Virtual Conference, Oct 13-16, 2020.

33. [**INFOCOM'20**] Yanwen Wang, Jiaxing Shen, **Yuanqing Zheng**, "Push the Limit of Acoustic Gesture Recognition", *The IEEE International Conference on Computer Communications (IEEE INFOCOM)*, 6-9 July 2020, Virtual Conference, (**Best Paper Award in IEEE INFOCOM 2020**).

34. [**INFOCOM'20**] Xianjin Xia, **Yuanqing Zheng**, Tao Gu, "LiteNap: Downclocking LoRa Reception", *The IEEE International Conference on Computer Communications (IEEE INFOCOM)*, 6-9 July 2020, Virtual Conference.

35. [**SenSys'19**] Xianjin Xia, **Yuanqing Zheng**, Tao Gu, "FTrack: Parallel Decoding for LoRa Transmissions", *the 17th ACM Conference on Embedded Networked Sensor Systems (ACM SenSys 2019)*, November 10-13, 2019, New York, NY, USA.

36. [**UbiComp'19**] Yanwen Wang, **Yuanqing Zheng**, "Modeling RFID Signal Reflection for Contact-free Activity Recognition", *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*, Volume 2, issue 4, December 2018, Article No. 193, DOI: 10.1145/3287071.

37. [**UbiComp'18**] Tianben Wang, Daqing Zhang, **Yuanqing Zheng**, Tao Gu, Xingshe Zhou, and Bernadette Dorizzi, "C-FMCW Based Contactless Respiration Detection Using Acoustic Signal", *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*, Volume 1 Issue 4, December 2017, Article No. 170, DOI: 10.1145/3161188.

38. **[ICDCS'17]** Yuxiao Hou, Yanwen Wang, **Yuanqing Zheng**, "TagBreathe: Monitor Breathing with Commodity RFID Systems", *IEEE 37th International Conference on Distributed Computing Systems (IEEE ICDCS)*, 5-8 June 2017, DOI: 10.1109/ICDCS.2017.76.

39. **[ICDCS'17]** Saiyu Qi, **Yuanqing Zheng**, Xiaofeng Chen, Jianfeng Ma, Yong, Qi, "Double-Edged Sword: Incentivized Verifiable Product Path Query for RFID-enabled Supply Chain", *IEEE 37th International Conference on Distributed Computing Systems (IEEE ICDCS)*, 5-8 June 2017, DOI: 10.1109/ICDCS.2017.265.

40. **[INFOCOM'17]** Yuxiao Hou, **Yuanqing Zheng**, "PHY Assisted Tree-based RFID Identification", *The IEEE International Conference on Computer Communications (IEEE INFOCOM)*, 1-4 May 2017, DOI: 10.1109/INFOCOM.2017.8056984.

41. **[INFOCOM'17]** Min Chen, Jia Liu, Shigang Chen, Yan Qiao, **Yuanqing Zheng**, "DBF: A General Framework for Anomaly Detection in RFID Systems", *The IEEE International Conference on Computer Communications (IEEE INFOCOM)*, 1-4 May 2017, DOI: 10.1109/INFOCOM.2017.8056986.

42. **[MobiCom'15]** Jiajue Ou, Mo Li, **Yuanqing Zheng**, "Come and Be Served: Parallel Decoding for COTS RFID Tags", *The 21st Annual International Conference on Mobile Computing and Networking (ACM MobiCom)*, Paris, France, September 2015, pages 500-51, DOI: 10.1145/2789168.2790101.

43. **[MobiHoc'15]** Zhenjiang Li, Wan Du, **Yuanqing Zheng**, Mo Li, Dapeng Wu, "From Rateless to Hopless", *The 16th International Symposium on Mobile Ad Hoc Networking and Computing (ACM MobiHoc)*, Hangzhou, China, 2015, pages 107-116, DOI: 10.1145/2746285.2746308.

44. **[INFOCOM'15]** Yuxiao Hou, Jiajue Ou, **Yuanqing Zheng**, Mo Li, "PLACE: Physical Layer Cardinality Estimation for Large-Scale RFID Systems", *The 34th IEEE International Conference on Computer Communications (IEEE INFOCOM)*, Hong Kong, China, April 2015, pages 1957-1965, DOI: 10.1109/INFOCOM.2015.7218579.

45. **[ICNP'14]** Saiyu Qi, **Yuanqing Zheng**, Mo Li, Yunhao Liu, Jinli Qiu, "Scalable Data Access Control in RFID-Enabled Supply Chain", *The 22nd IEEE International Conference on Network Protocols (IEEE ICNP)*, The Research Triangle, North Carolina, USA, October 2014, pages 71-82, DOI: 10.1109/ICNP.2014.28.

46. **[MobiCom'14]** **Yuanqing Zheng**, Guobin Shen, Liqun Li, Chunshui Zhao, Mo Li, Feng Zhao, "Travi-Navi: Self-deployable Indoor Navigation System", *The 20th Annual International Conference on Mobile Computing and Networking (ACM MobiCom)*, Maui, Hawaii, USA, September 2014, pages 471-482, DOI: 10.1145/2639108.2639124.

47. **[INFOCOM'14]** **Yuanqing Zheng**, Mo Li, "Read Bulk Data from Computational RFIDs", *The 33rd IEEE International Conference on Computer Communications (IEEE INFOCOM)*, Toronto, Canada, 2014, pages 495-503, DOI: 10.1109/INFOCOM.2014.6847973.

48. **[INFOCOM'14]** Jiajue Ou, **Yuanqing Zheng**, Mo Li, "MISC: Merging Incorrect Symbols using Constellation Diversity for 802.11 Retransmission", *The 33rd IEEE International Conference on Computer Communications (IEEE INFOCOM)*, Toronto, Canada, 2014, pages 2472-2480, DOI: 10.1109/INFOCOM.2014.6848193.

49. **[INFOCOM'14]** Saiyu Qi, **Yuanqing Zheng**, Mo Li, Li Lu, Yunhao Liu, "COLLECTOR: A Secure RFID-Enabled Batch Recall Protocol", *The 33rd IEEE International Conference on Computer Communications (IEEE INFOCOM)*, Toronto, Canada, 2014, pages 1510-1518, DOI: 10.1109/INFOCOM.2014.6848086.

50. **[INFOCOM'13]** **Yuanqing Zheng**, Mo Li, "P-MTI: Physical-layer Missing Tag Identification via Compressive Sensing", *The 32nd IEEE International Conference on Computer Communications (IEEE INFOCOM)*, Turin, Italy, 2013, pages 917-925, DOI: 10.1109/INFCOM.2013.6566880.

51. **[INFOCOM'13]** **Yuanqing Zheng**, Mo Li, "ZOE: Fast Cardinality Estimation for Large-Scale RFID Systems", *The 32nd IEEE International Conference on Computer Communications (IEEE INFOCOM)*, Turin, Italy, 2013, pages 908-916, DOI: 10.1109/INFCOM.2013.6566879.

52. **[SenSys'12]** Pengfei Zhou, **Yuanqing Zheng**, Zhenjiang Li, Mo Li, Guobin Shen, "IODetector: A Generic Service for Indoor Outdoor Detection", *The 10th ACM Conference on Embedded Networked Sensor Systems (ACM SenSys)*, Toronto, Canada, Nov. 2012, pages 113-126, DOI: 10.1145/2426656.2426668, (**Test of Time Award in ACM SenSys 2022**).

53. **[MobiSys'12]** Pengfei Zhou, **Yuanqing Zheng**, Mo Li, "How Long to Wait?: Predicting Bus Arrival Time with Mobile Phone based Participatory Sensing", *The 10th ACM International Conference on Mobile Systems, Applications and Services (ACM MobiSys)*, Low Wood Bay, United Kingdom, Jun. 2012, pages 379-392, DOI: 10.1145/2307636.2307671.

54. **[ICNP'11]** **Yuanqing Zheng**, Mo Li, "Fast Tag Searching Protocol for Large-Scale RFID Systems", *The 19th IEEE International Conference on Network Protocols (IEEE ICNP)*, Vancouver, Canada, Oct 2011, pages 363-372, DOI: 10.1109/ICNP.2011.6089075.

55. **[ICDCS'11]** **Yuanqing Zheng**, Mo Li, Chen Qian, "PET: Probabilistic Estimating Tree for Large-Scale RFID Estimation", *The 31st IEEE International Conference on Distributed Computing Systems (IEEE ICDCS)*, Minneapolis, Minnesota, USA, Jun 2011, pages 37-46, DOI: 10.1109/ICDCS.2011.9.

Refereed Journal Publications

56. [**TMC**] Shiming Yu, Xianjin Xia, Ziyue Zhang, Ningning Hou, **Yuanqing Zheng**, "FDLoRa: Scaling Downlink Concurrent Transmissions with Full-duplex LoRa Gateways", *IEEE Transactions on Mobile Computing*, accepted for publication.

57. [**TON**] Shiming Yu, Xianjin Xia, Ningning Hou, **Yuanqing Zheng**, Tao Gu, "XGate: Scaling LoRa Communications to Massive Logical Channels", *IEEE Transactions on Networking*, accepted for publication.

58. [**TMC**] Kaiyan Cui, Qiang Yang, Leming Shen, **Yuanqing Zheng**, Fu Xiao, Jinsong Han, "Towards ISAC-Empowered mmWave Radars by Capturing Modulated Vibrations", *IEEE Transactions on Mobile Computing*, accepted for publication.

59. [**TON**] Xianjin Xia, Qianwu Chen, Ningning Hou, **Yuanqing Zheng**, "HyLink: Towards High Throughput LPWANs with LoRa Compatible Communication", *IEEE/ACM Transactions on Networking*, accepted for publication.

60. [**TSDC**] Qiang Yang, Kaiyan Cui, **Yuanqing Zheng**, "Room-scale Voice Liveness Detection for Smart Devices", *IEEE Transactions on Dependable and Secure Computing*, accepted for publication, DOI: 10.1109/TDSC.2024.3367269

61. [**TON**] Ningning Hou, Xianjin Xia, Yifeng Wang, **Yuanqing Zheng**, "One Shot for All: Quick and Accurate Data Aggregation for LPWANs", *IEEE/ACM Transactions on Networking*, volume 32, issue 3, pages 2285-2298, 24 January 2024, DOI: doi.org/10.1109/TNET.2024.3353792

62. [**TCOM**] Xintao Huan, Wen Chen, Tianli Wang, Han Hu, **Yuanqing Zheng**, "A One-Way Time Synchronization Scheme for Practical Energy-Efficient LoRa Network Based on Reverse Asymmetric Framework", *IEEE Transactions on Communications*, volume 71, issue 1, pages 6466-6481, 15 August 2023, DOI: 10.1109/TCOMM.2023.3305515

63. [**TMC**] Weiye Xu, Jianwei Liu, Shimin Zhang, **Yuanqing Zheng**, Feng Lin, Fu Xiao, Jinsong Han, "Anti-Spoofing Facial Authentication Based on COTS RFID", *IEEE Transactions on Mobile Computing*, volume 23, issue 5, pages 4228-4245, 27 June 2023, DOI: 10.1109/TMC.2023.3289708

64. [**TMC**] Tianben Wang, Zhishen Wang, Xiantao Liu, Wenbo Liu, Leye Wang, **Yuanqing Zheng**, Jin Hu, Tao Gu, Daqing Zhang, "OmniResMonitor: Omnimonitoring of Human Respiration using Acoustic Multipath Reflection", *IEEE Transactions on Mobile Computing*, volume 23, issue 5, pages 3876-3889, 01 June 2023, DOI: 10.1109/TMC.2023.3281928

65. [**TOSN**] Ningning Hou, Xianjin Xia, **Yuanqing Zheng**, "Jamming of LoRa PHY and Countermeasure", *ACM Transactions on Sensor Networks*, volume 19, issue 4, article no. 80, pages 1-27, 16 May 2023, DOI: doi.org/10.1145/3583137

66. [**TMC**] Qiang Yang, **Yuanqing Zheng**, "DeepEar: Sound Localization with Binaural Microphones", *IEEE Transactions on Mobile Computing*, volume 23, issue 1, pages 359-375, 17 November 2022, DOI: 10.1109/TMC.2022.3222821

67. [**TON**] Ningning Hou, Xianjin Xia, **Yuanqing Zheng**, "CloakLoRa: A Covert Channel over LoRa PHY", *IEEE/ACM Transactions on Networking*, volume 31, issue 3, pages 1159-1172, DOI: doi.org/10.1109/TNET.2022.3209255

68. [**TOSN**] Ningning Hou, Xianjin Xia, **Yuanqing Zheng**, "Don't Miss Weak Packets: Boosting LoRa Reception with Antenna Diversities", *ACM Transactions on Sensor Networks*, volume 19, issue 2, article no. 41, pages 1-25, DOI: doi.org/10.1145/35636

69. [**TOSN**] Xianjin Xia, Ningning Hou, **Yuanqing Zheng**, Tao Gu, "PCube: Scaling LoRa Concurrent Transmissions with Reception Diversities", *ACM Transactions on Sensor Networks* – Special Issue on Low Power Wide Area Networks, volume 18, issue 4, article no. 66, pages 1-25, DOI: doi.org/10.1145/3545571

70. [**TDSC**] Shang Gao, Zhe Peng, Feng Tan, **Yuanqing Zheng**, and Bin Xiao, "SymmeProof: Compact Zero-Knowledge Argument for Blockchain Confidential Transactions", *IEEE Transactions on Dependable and Secure Computing*, volume 20, issue 3, pages 2289-2301, 02 June 2022, DOI: 10.1109/TDSC.2022.3179913

71. [**TOSN**] Saiyu Qi, Wei Wei, Jingxian Cheng, **Yuanqing Zheng**, Zhou Su, Jingning Zhang, Yong Qi, "Secure and Efficient Item Traceability for Cloud-Aided IIoT", *ACM Transactions on Sensor Networks*, volume 18, issue 4, article no. 54, pages 1-24, 29 November 2022, doi.org/10.1145/3522740.

72. [**TITS**] Youshui Lu, Jingning Zhang, Yong Qi, Saiyu Qi, **Yuanqing Zheng**, Yuhao Liu, Hongyu Song, Wei Wei, "Accelerating at the Edge: A Storage-Elastic Blockchain for Latency-Sensitive Vehicular Edge Computing", *IEEE Transactions on Intelligent Transportation Systems*, volume 23, issue 8, pages 11862-11876, 10 September 2021, DOI: 10.1109/TITS.2021.3108052

73. [**TON**] Xianjin Xia, **Yuanqing Zheng**, Tao Gu, "LiteNap: Downclocking LoRa Reception", *IEEE/ACM Transactions on Networking*, volume 29, issue 6, pages 2632-2632, 15 December 2021, DOI: 10.1109/TNET.2021.3096990

74. [**TMC**] Kaiyan Cui, Yanwen Wang, **Yuanqing Zheng**, Jinsong Han, "ShakeReader: 'Read' UHF RFID using Smartphone", *IEEE Transactions on Mobile Computing*, volume 22, issue 3, pages 1793-1809, 26 July 2021, DOI: 10.1109/TMC.2021.3098818

75. [**IoTJ**] Yanwen Wang, Jiannong Cao, **Yuanqing Zheng**, "Towards A Low-cost Software-Defined UHF RFID System for Distributed Parallel Sensing", *IEEE Internet of Things Journal*, volume 8, issue 17, pages 13664-13676, 19 March 2021, DOI: 10.1109/JIOT.2021.3067379

76. [**TMC**] Yanwen Wang, Jiaxing Shen, **Yuanqing Zheng**, "Push the Limit of Acoustic Gesture Recognition", *IEEE Transactions on Mobile Computing*, volume 21, issue 5, pages 1798-1811, 19 October 2022, DOI: 10.1109/TMC.2020.3032278 (Fast Tracked to IEEE TMC as the Best Paper Award recipient in IEEE INFOCOM 2020).

77. [**TDSC**] Saiyu Qi, **Yuanqing Zheng**, Yue Li, Xiaofeng Chen, Jianfeng Ma, Dongyi Yang, Yong Qi, "DE-Sword: Incentivized Verifiable Tag Path Query in RFID-enabled Supply Chain Systems", *IEEE Transactions on Dependable and Secure Computing*, preprint available online.

78. [**TDSC**] Saiyu Qi, **Yuanqing Zheng**, Xiaofeng Chen, Wei Wei, "Ants can Carry Cheese: Secure and Private RFID-Enabled Third-Party Distribution", *IEEE Transactions on Dependable and Secure Computing*, preprint available online. DOI: 10.1109/TDSC.2020.3026191.

79. [**TON**] Xianjin Xia, **Yuanqing Zheng**, Tao Gu, "FTrack: Parallel Decoding for LoRa Transmissions", *IEEE/ACM Transactions on Networking*, volume 28, issue 6, pages 2573-2586, DOI: 10.1109/TNET.2020.3018020.

80. [**TII**] Saiyu Qi, Youshui Lu, **Yuanqing Zheng**, Yumo Li, Xiaofeng Chen, "Cpds: Enabling Compressed and Private Data Sharing for Industrial IoT over Blockchain", *IEEE Transactions on Industrial Informatics* (Early Access), Date of Publication: 28 May 2020, DOI: 10.1109/TII.2020.2998166.

81. [**TMC**] Yanwen Wang, **Yuanqing Zheng**, "TagBreathe: Monitor Breathing with Commodity RFID Systems", *IEEE Transactions on Mobile Computing*, volume 19, issue 4, pages 969-981, 25 February 2019, DOI: 10.1109/TMC.2019.2900214.

82. [**TDSC**] Saiyu Qi, **Yuanqing Zheng**, "Crypt-DAC: Cryptographically Enforced Dynamic Access Control in the Cloud", *IEEE Transactions on Dependable and Secure Computing* (Early Access), 29 March 2019, DOI: 10.1109/TDSC.2019.2908164.

83. [**TON**] Xianjin Xia, Shining Li, Yu Zhang, Bingqi Li, **Yuanqing Zheng**, Tao Gu, "Enabling Out-of-Band Coordination of Wi-Fi Communications on Smartphones", *IEEE/ACM Transactions on Networking*, Volume: 27, Issue: 2, April 2019, Date of Publication: 06 March 2019, DOI: 10.1109/TNET.2019.2891263.

84. [**IoTJ**] Tianben Wang, Daqing Zhang, Leye Wang, **Yuanqing Zheng**, Tao Gu, Bernadette Dorizzi, Xingshe Zhou, "Contactless Respiration Monitoring Using Ultrasound Signal With Off-the-Shelf Audio Devices", *IEEE Internet of Things Journal*, Volume: 6, Issue: 2, April 2019, Date of Publication: 23 October 2018, DOI: 10.1109/JIOT.2018.2877607.

85. [**IEEE Wireless Communications**] Dapeng Wu, Zhenjiang Li, Jianping Wu, **Yuanqing Zheng**, Mo Li, Qiuyuan Huang, "Vision and Challenges for Knowledge Centric Networking", *IEEE Wireless Communications* (Early Access), 11 April 2019, DOI: 10.1109/MWC.2019.1800323.

86. [**TON**] Yuxiao Hou, Yuanqing Zheng, "PHY-Tree: Physical Layer Tree-Based RFID Identification", *IEEE/ACM Transactions on Networking*, Volume: 26, Issue: 2, pages 711-723, 31 January 2018, DOI: 10.1109/TNET.2018.2791938.

87. [**TON**] **Yuanqing Zheng**, Guobin Shen, Liqun Li, Chunshui Zhao, Feng Zhao, "Travi-Navi: Self-Deployable Indoor Navigation System", *IEEE/ACM Transactions on Networking*, Volume: 25, Issue: 5, pages 2655 - 2669, 09 June 2017, DOI: 10.1109/TNET.2017.2707101.

88. [**TON**] Jiajue Ou, Mo Li, **Yuanqing Zheng**, "Come and Be Served: Parallel Decoding for COTS RFID Tags", *IEEE/ACM Transactions on Networking*, Volume: 25, Issue: 3, pages 1569 - 1581, 16 January 2017, DOI: 10.1109/TNET.2016.2645232.

89. [**TON**] Saiyu Qi, **Yuanqing Zheng**, Mo Li, Yunhao Liu, Jinli Qin, "Scalable Industry Data Access Control in RFID-Enabled Supply Chain", *IEEE/ACM Transactions on Networking*, Volume: PP, Issue: 99, pages 1-14, 25 March 2016, DOI: 10.1109/TNET.2016.2536626.

90. [**TON**] Zhenjiang Li, Wan Du, **Yuanqing Zheng**, Mo Li, Dapeng Oliver Wu, "From Rateless to Hopless", *IEEE/ACM Transactions on Networking*, Volume: PP, Issue: 99, pages 1-14, 18 March 2016, DOI: 10.1109/TNET.2016.2561304.

91. [**TC**] Saiyu Qi, **Yuanqing Zheng**, Mo Li, Li Lu, Yunhao Liu, "Secure and Private RFID-Enabled Third-Party Supply Chain Systems", *IEEE Transactions on Computers*, Volume: PP, Issue: 99, pages 1-14, 04 March 2016, DOI: 10.1109/TC.2016.2538260.

92. [**WINET**] Yuxiao Hou, **Yuanqing Zheng**, Mo Li, "Fair QoS multi-resource allocation for uplink traffic in WLAN", *Wireless Networks*, pages 1-20, 28 December 2015, DOI: 10.1007/s11276-015-1170-2.

93. [**TON**] **Yuanqing Zheng**, Mo Li, "Read Bulk Data from Computational RFIDs", *IEEE/ACM Transactions on Networking*, Volume: PP, Issue: 99, pages 1-14, 09 December 2015, DOI: 10.1109/TNET.2015.2502979.

94. [**TON**] Yuxiao Hou, Jiajue Ou, **Yuanqing Zheng**, Mo Li, "PLACE: Physical Layer Cardinality Estimation for Large-Scale RFID Systems", *IEEE/ACM Transactions on Networking*, Volume: PP, Issue: 99, pages 1-13, 14 October 2015, DOI: 10.1109/TNET.2015.2481999.

95. [**TON**] **Yuanqing Zheng**, Mo Li, "P-MTI: Physical-layer Missing Tag Identification via Compressive Sensing", *IEEE/ACM Transactions on Networking*, Volume: 23, Issue: 4, pages 1356-1366, August 2015, 10.1109/TNET.2014.2326460.

96. [**TON**] **Yuanqing Zheng**, Mo Li, "Towards More Efficient Cardinality Estimation for Large-Scale RFID Systems", *IEEE/ACM Transactions on Networking*, Volume: 22, Issue: 6, pages 1886-1896, December 2014, DOI: 10.1109/TNET.2013.2288352.

97. [**TON**] **Yuanqing Zheng**, Mo Li, "Fast Tag Searching Protocol for Large-Scale RFID Systems", *IEEE/ACM Transactions on Networking*, Volume: 21, Issue: 3, pages 924-934, June 2013, DOI: 10.1109/TNET.2012.2212454.

98. [**TMC**] **Yuanqing Zheng**, Mo Li, "PET: Probabilistic Estimating Tree for Large-Scale RFID Estimation", *IEEE Transactions on Mobile Computing*, Volume: 11, Issue: 11, pages 1763-1774, November 2012, DOI: 10.1109/TMC.2011.238.

99. [**TMC**] Pengfei Zhou, **Yuanqing Zheng**, Mo Li, "How Long to Wait?: Predicting Bus Arrival Time with Mobile Phone based Participatory Sensing", *IEEE Transactions on Mobile Computing*, Volume: 13, Issue: 6, June 2014, DOI: 10.1109/TMC.2013.136.

100. [**TOSN**] Mo Li, Pengfei Zhou, **Yuanqing Zheng**, Zhenjiang Li, and Guobin (Jacky) Shen, "IODetector: A Generic Service for Indoor Outdoor Detection", *ACM Transactions on Sensor Network*, Volume: 11, Issue: 2, pages 1-29, February 2015, DOI: 10.1145/2659466.

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