

ATTACHMENT

Publications

A. Book Chapter

1. **Qirui Huang**, “Commercial Optical Switches”, *Optical Switching in Next Generation Data Centers*, Springer, 2018, pp. 203 – 219.

B. Journal

2. Pan Lai, Jing Xiao, Qinglong Ma, Heng Zhao, Shihua Zhang, Ke Yao, **Qirui Huang**, “Deep Learning for Remote Sensing Image Classification”, to be submitted, 2025.
3. Pai Lai, Yiran Tao, Jun Qin, Yuanai Xie, Shihua Zhang, Shanjiang Tang, **Qirui Huang**, Shengquan Liao, “Joint optimization of application placement and resource allocation for enhanced performance in heterogeneous multi-server systems,” *Computer Networks*, vol 253, Nov. 2024.
4. Zhengding Luo, Dongyuan Shi, Woon-Seng Gan, and **Qirui Huang**, “Delayless Generative Fixed-Filter Active Noise Control Based on Deep Learning and Bayesian Filter,” *IEEE/ACM Transaction on Audio, Speech, and Language Processing*, vol. 32, Dec. 2023.
5. **Qirui Huang**, “On Design and Performance Analysis of a Load Balanced Optical Switch based on Polarization Division Multiplexing,” *IEEE Transactions on Communications*, vol. 63, no. 11, pp. 4339-4346, Nov. 2015.
6. Luying Zhou, Zhaowen Xu, Xiaofei Cheng, **Qirui Huang**, “An optical circuit switching network architecture and reconfiguration schemes for datacenter,” *Optics Communications*, vol. 335, pp. 250-256, Jan. 2015.
7. **Qirui Huang**, Xiaofei Cheng, and Luying Zhou, “Scheduling and Performance Evaluation of High Line-Rate Space-Wavelength Routed Switch for Datacenter,” *Optics Communications*, vol. 324, pp. 147-151, Aug. 2014.
8. Long Xiao, Xiaofei Cheng, Zhaowen Xu, and **Qirui Huang**, “Lengthened simplex codes with complementary correlation for faulty branch detection in TDM-PON,” *IEEE Photonics Technology Letters*, vol. 25, no. 23, pp. 2315-2318, Dec. 2013.
9. **Qirui Huang**, Yong-Kee Yeo, and Luying Zhou, “Optical switch with load balancing capability using polarization division multiplexing,” *IEEE Photonics Technology Letters*, vol. 25, no. 9, pp. 871-874, May, 2013.
10. Luying Zhou, Zhaowen Xu, **Qirui Huang**, Xiaofei Cheng, Yong-Kee, Yeo, and Xu Shao, “A passive optical network with shared transceivers for dynamical resource allocation,” *IEEE Transactions on Communications*, vol. 61, no. 4, pp. 1554-1561, April 2013.
11. **Qirui Huang**, Yong-Kee Yeo, and Luying Zhou, “A single-stage optical load-balanced switch for data centers,” *Optics Express*, vol. 20, no. 22, pp. 25014-25021, Oct. 2012.
12. **Qirui Huang**, Yong-Kee Yeo, and Luying Zhou, “Combining circuit and packet switching using a large port-count optical cross-connect for data center networks,” *Optics Communications*, vol. 285, no. 21-22, pp. 4268-4274, Oct. 2012.
13. **Qirui Huang**, and Wen-De Zhong, “A wavelength-routed multicast packet switch with a shared-FDL buffer,” *IEEE/OSA Journal of Lightwave Technology*, Vol. 28, no. 19, pp. 2822-2829, Oct. 2010.
14. **Qirui Huang**, and Wen-De Zhong, “Multiwavelength multicast packet switch: performance analysis and evaluation,” *IEEE/OSA Journal of Optical Communications and Networking*, vol.

- 2, no. 9, pp. 678-688, Sept. 2010.
15. **Qirui Huang**, and Wen-De Zhong, "Wavelength-Routed optical multicast packet switch with improved performance," *IEEE/OSA Journal of Lightwave Technology*, vol. 27, no. 24, pp. 5657-5664, Dec. 2009.
 16. **Qirui Huang**, and Wen-De Zhong, "Traffic performance evaluation of an optical packet switch with multicast operation," *IEEE Communications Letters*, vol. 12, no. 12, pp. 894-896, Dec. 2008.
 17. **Qirui Huang**, and Wen-De Zhong, "An optical wavelength-routed multicast packet switch based on multitimeslot multiwavelength conversion," *IEEE Photonics Technology Letters*, vol. 20, no. 18, pp. 1518-1520, Sept. 2008.
 18. Jing Yuan, Fengguang Luo, Xinjun Zhou, **Qirui Huang**, and Mingcui Cao, "Optical interconnection in embedded-fiber printer circuit boards," *Optik - International Journal for Light and Electron Optics*, vol. 119, no. 1, pp. 45-50, Jan 2008.
 19. **Qirui Huang**, Fengguang LUO, Jia HU, Zhuo WANG, and Ming XIA, "Fully Reconfigurable Optical Add-Drop Multiplexer Based on Parallel Configuration Using Mach-Zehnder Module", *Optics Communications*, vol. 269, no. 1, pp. 113-118, Jan. 2007.
 20. **Qirui Huang**, Fengguang LUO, Zhou WANG, Ming XIA, Jia HU, Jing YUAN, and Guang SHEN, "Parallel-stage-based Reconfigurable Optical Add-Drop Multiplexer for WDM Optical Transport Networks", *IEEE Photonics Technology Letters*, vol. 18, pp. 1864-1866, Sept. 2006.
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 22. GuangShen, Mingcui Cao, FengguangLuo, Ping Huang, **Qirui Huang**, "Optical interconnection on PCB level using MT compatible connectors and fiber-embedded boards", *Optoelectronics Letters*, vol. 2, no. 6, pp. 452-454, 2006.

C. Conference

23. Ziyi Yang, Li Rao, Zhengding Luo, Dongyuan Shi, **Qirui Huang** and Woon-Seng Gan, "Co-initialization of control filter and second path via meta-learning for active noise control," 2026 IEEE International Conference on Acoustics, Speech, and Signal Processing, Submitted.
24. Z. Yang, Z. Luo, D. Shi, J. Ji, B. Wang, H. Li, **Q. Huang** and W. Gan, "Meta-Learned Regional Initialization of Control Filters for Headphone Active Noise Control," 2025 Asia Pacific Signal and Information Processing Association Annual Summit and Conference (**APSIPA ASC Best Workshop Paper**), Singapore, 2025.
25. J. Xiao, **Q. Huang**, "Continual Learning-Based Selective Fixed-filter Active Noise Control," 2025 Asia Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC), Singapore, 2025.
26. J. Yeow, E. Tan, S. Peksi, W. Gan and **Q. Huang**, "Towards Robust Stereo 3-D SELD: A Study of Perceptual Features and Data Augmentation," 2025 Asia Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC), Singapore, 2025.
27. Z. Luo, D. Shi, W. Gan, **Q. Huang**, and L. Zhang, "Performance Evaluation of Selective Fixed-filter Active Noise Control based on Different Convolutional Neural Networks," INTER-NOISE and NOISE-CON Congress and Conference Proceedings (InterNoise22), Glasgow, Scotland, 2022.
28. **Qirui Huang**, "CISDeM Testbed for Adaptive Data-Driven Enterprise Network Security," 24th IEEE International Conference on Network Protocols (ICNP 2016), Singapore, Invited talk.

29. **Qirui Huang**, Yong-Kee Yeo, and Luying Zhou, "Optical burst-over-circuit switching for multi-granularity traffic in data centers," in *Proc. OFC/NFOEC 2013*, Anaheim, CA, 2013, Paper OW3H5.
30. Yong-Kee Yeo, **Qirui Huang**, and Luying Zhou, "Large port-count optical crossconnect for data center," in *Proc. Photonics in Switching 2012*, Ajaccio-Corsica, France, 2012, Invited Paper.
31. Luying Zhou, Zhaowen Xu, Xiaofei Cheng, Yong-Kee Yeo, and **Qirui Huang**, "A dynamic wavelength resource allocation capable passive optical network with shared transceivers," in *Proc. ICC 2012*, Ottawa, Canada, 2012. **(ICC 2012 Best Paper Award)**
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33. R. Lin, W. D. Zhong, S. K. Bose, M. Zukerman and **Q. Huang**, "Light-tree based multicast traffic grooming in WDM mesh networks," in *Proc. OECC 2010*, Sapporo, Japan, pp 274-275.
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36. **Qirui Huang**, Wen-De Zhong, and Wen Chen, "Performance evaluation of a WDM optical packet switch with multicast capability," in *Proc. ICICS' 2009*, Macau, P. R. China, 2009, pp 1-4.
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D. Patent (5 US, 11 Chinese)

US

39. **Qirui Huang** and Yongjun Liu, "Beam Control Method and Apparatus," US20240364398A1, 2024.
40. Yongjun Liu, **Qirui Huang**, Chang Liu, "Positioning Method, Transmit End, Receive End, and Computer-Readable Storage Medium," US20240188033A1, 2024.
41. Shiyang Zhu, Zhanshi Yao, and **Qirui Huang**, "OPTICAL WAVEGUIDE DEVICE, OPTICAL CHIP, AND COMMUNICATION DEVICE", US20240192531A1, 2024.
42. Gang Ni, Xijin Tan, **Qirui Huang**, Lifeng Sun, Huimin Zhang, and Yida Li, "Capacitive sensor, electronic device, and electronic device control method," US12136915B2, 2024.
43. Gang Ni, Xijin Tan, **Qirui Huang**, Lifeng Sun, Huimin Zhang, Yida Li, "CAPACITIVE SENSOR, ELECTRONIC DEVICE, AND ELECTRONIC DEVICE CONTROL METHOD," US20230015735A1, 2023.

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45. 刘永俊; 杨晖; **黄启睿**, "通信方法、装置及可读存储介质", CN119893423A, 2025.
46. 竺士炀; 姚湛史; **黄启睿**, "光波导器件、光芯片、通信设备", CN115903282A, 2024.
47. 刘永俊; **黄启睿**; 刘畅, "定位方法、发送端、接收端及计算机可读存储介质",

CN116034592B, 2025.

48. 黄启睿; 刘永俊, “波束控制方法及装置”, CN118489262A, 2024.
49. 刘永俊; 黄启睿, “信号传输方法及装置”, CN118264293A, 2024.
50. 刘永俊; 黄启睿, “激光系统和激光系统的控制方法”, CN116846470A, 2023
51. 刘永俊; 黄启睿; 刘畅, “定位方法、发送端、接收端及计算机可读存储介质”, CN116034592A, 2023.
52. 刘永俊; 黄启睿, “一种激光系统”, CN114982077A, 2022.
53. 倪刚; 谭细金; 黄启睿; 孙立峰; 张慧敏; 李毅达, “电容传感器、电子设备以及电子设备的控制方法”, CN115485646A, 2022.
54. 倪刚; 郭智; 黄启睿; 张慧敏, “电容传感器、终端设备、传感器组件和检测方法”, CN115244491A, 2022.