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Research Interests

Information theory, Wireless communications and networking, Cyber-physical systems, Markov decision process, Reinforcement learning, Multi-armed bandits





Education

- 08/2019 – 07/2023 📖 **The Chinese University of Hong Kong**, Hong Kong, China.
Ph.D. in information engineering.
- 09/2016 – 06/2019 📖 **Southeast University**, Nanjing, China.
Master in Control Science and Engineering.
- 09/2012 – 06/2016 📖 **University of Electronic Science and Technology of China**, Chengdu, China.
Bachelor in Automation Engineering.

Publications and Preprints


- [1] G. Chen and S. C. Liew, “Intermittently observable markov decision processes,” *arXiv:2302.11761*, (Under Review).
- [2] —, “An index policy for minimizing the uncertainty-of-information of markov sources,” *IEEE Transactions on Information Theory*, vol. 70, no. 1, pp. 698–721, 2024. [🔗](#) DOI: 10.1109/TIT.2023.3315459.
- [3] G. Chen, S. C. Liew, and D. Gunduz, “Gino-q: Learning an asymptotically optimal index policy for restless multi-armed bandits,” *arXiv preprint arXiv:2408.09882*, 2024.
- [4] G. Chen, L. Zhang, and S. C. Liew, “Periodic transmissions in random access networks: Stressed period and delay,” *IEEE Transactions on Communications*, vol. 71, no. 7, pp. 4119–4132, 2023. [🔗](#) DOI: 10.1109/TCOMM.2023.3273419.
- [5] G. Chen, S. C. Liew, and Y. Shao, “Uncertainty-of-information scheduling: A restless multi-armed bandit framework,” *IEEE Transactions on Information Theory*, vol. 68, no. 9, pp. 6151–6173, 2022. [🔗](#) DOI: 10.1109/TIT.2022.3177891.
- [6] G. Chen, X. Cao, and J. Jin, “Joint scheduling and channel allocation for kalman filtering over multihop wireless networks,” *IEEE Transactions on Industrial Informatics*, vol. 17, no. 5, pp. 3555–3565, 2021. [🔗](#) DOI: 10.1109/TII.2020.2984491.
- [7] G. Chen, X. Cao, L. Liu, C. Sun, and Y. Cheng, “Joint scheduling and channel allocation for end-to-end delay minimization in industrial wireless networks,” *IEEE Internet of Things Journal*, vol. 6, no. 2, pp. 2829–2842, 2019. [🔗](#) DOI: 10.1109/JIOT.2018.2875508.
- [8] M. Lei, X. Cao, G. Chen, and C. Sun, “A consensus-state-aware adaptive algorithm for tuning csma parameters in multi-agent networks,” in *2019 IEEE 28th International Symposium on Industrial Electronics (ISIE)*, 2019, pp. 1769–1774. [🔗](#) DOI: 10.1109/ISIE.2019.8781184.
- [9] G. Chen, R. Ma, M. Lei, and X. Cao, “Channel list selection based on quality prediction in wireless networks,” *Journal of Communications and Information Networks*, vol. 3, no. 3, pp. 49–56, 2018. [🔗](#) DOI: 10.1007/s41650-018-0030-5.

Honors and Awards




- 03/2022  Exemplary Reviewer, IEEE Wireless Communications Letters.
- 09/2020  Excellent Master's Degree Thesis Award, Southeast University.
- 08/2019  Postgraduate Studentship, The Chinese University of Hong Kong
- 06/2019  Outstanding graduate of Southeast University
- 10/2016  Graduate scholarship, first prize, Southeast University.
- 08/2015  The 10th National College Students 'Freescale Cup' Intelligent Car Competition, provincial first prize.
- 08/2014  Sichuan College Students Electronic Design Competition, first prize.

Services




Organisation of International Conferences

- 12/2020  **Session Chair**, Session A1: Learning Algorithm, IEEE International Conference on Parallel and Distributed Systems (IEEE ICPADS 2020).






Journal Review

-  IEEE Transactions on Wireless Communications.
-  IEEE Wireless Communications Letters.
-  IEEE/CAA Journal of Automatica Sinica.



Conference Review



-  IEEE Vehicular Technology Conference (VTC).
-  IEEE International Conference on Parallel and Distributed Systems (ICPADS).
-  IEEE/CIC International Conference on Communications in China (ICCC).

Teaching Assistant

- IERG 2470  **Probability Models and Applications**, Spring 2022.
- IERG 2080  **Introduction to Systems Programming**, Fall 2021.
- IERG 2470  **Probability Models and Applications**, Spring 2021.
- IERG 3010  **Digital Communications**, Fall 2020.
- ENGG 2470  **Probability for Engineers**, Spring 2020.

Referees

Prof. Soung Chang Liew Professor The Chinese University of Hong Kong
 Shatin, NT, Hong Kong
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Prof. Xianghui Cao Professor Southeast University
 Sipailou, Nanjing, Jiangsu, China
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