

AIMIN LI

Postdoctoral Researcher, KTH Royal Institute of Technology

Division of Information Science and Engineering

Stockholm, Sweden | Born: July 1998

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RESEARCH INTERESTS

Information Theory, Age of Information, Goal-Oriented and Semantic Communications, Optimal Sampling and Scheduling, Finite-Blocklength Channel Coding, and Non-Terrestrial and Space Networks

EDUCATION

Harbin Institute of Technology, Shenzhen

Sep 2020 – 2025

Project 985, China

Ph.D., *Information and Communication Engineering*

GPA rank: 1st

Thesis Title: “**Key Technologies for Timeliness-Enhanced Space-Air Communications in Perception-Decision Closed-Loop Systems**”

Advisor: **Prof. Shaohua Wu**

Harbin Institute of Technology, Shenzhen

Aug 2016 – Jun 2020

Project 985, China

B.S., *Electrical Engineering*

GPA rank: 2nd

Thesis Title: “**Performance Analysis and Encoding Algorithm Design of Spinal Codes in the Finite Blocklength Regime**”

Advisor: **Prof. Shaohua Wu**

RESEARCH EXPERIENCE

Postdoctoral Researcher, KTH Royal Institute of Technology, Stockholm

Oct 2026 – Present

Division of Information Science and Engineering. Advisor: **Prof. Mikael Skoglund** (IEEE Fellow).

- Swedish Research Council (VR) project on joint communication and decision-making for distributed systems.

Postdoctoral Researcher, Middle East Technical University, Ankara

Oct 2025 – Oct 2026

Communication Networks Research Group (CNG). Advisor: **Prof. Elif Uysal** (IEEE Fellow).

- Researcher on the **ERC Advanced Grant GO-SPACE**, jointly with the German Aerospace Center (DLR).
- Developed age-optimal preemption theory under heavy-tailed delays [C18] and goal-oriented designs for interplanetary and non-terrestrial networks [J24].
- Mentored student research on sampling, preemption, and satellite random access, leading to papers at ISIT [C18], ITW [C15], MobiHoc [C5], Asilomar [C12], WiSEE [C13], and IAC [C4].

Visiting Researcher, A*STAR, Singapore

Oct 2023 – Oct 2024

Institute for Infocomm Research (I²R). Advisor: **Prof. Sumei Sun** (IEEE Fellow).

- Built a goal-oriented sampling framework for remote decision making [J16], [C20], and extended goal-oriented timeliness to tensor and semantic settings [J21], [C21], [J20].
- Derived tight finite-blocklength error bounds for Spinal codes [J17], [J18], [J19].

AWARDS AND HONORS

- Best Dissertation Award Nomination** 2025
Harbin Institute of Technology (HIT), China. **Sole nominee** of the EE Department and one of only two nominees in the School.
- Provincial Outstanding Graduate Award** 2025
Heilongjiang Province, China. Provincial-level honor for graduates, awarded to the **top 0.4%** in the province.
- Outstanding Graduate Student Award** 2025
Harbin Institute of Technology (HIT), China. Awarded to the top 10% of graduates.
- 3rd Prize, IEEE GLOBECOM 4MT Thesis Competition** Dec 2024
IEEE Communications Society's worldwide doctoral thesis competition. Ranked **5th among 15 finalists worldwide**; presented by the IEEE ComSoc President.
- IEEE GLOBECOM Student Travel Grant** Dec 2024
Granted to the **top 15 Ph.D. students worldwide** selected for the 4MT finals.
- National Scholarship of China (twice)** 2020, 2024
The highest-level government scholarship for graduate students in China, awarded to the **top 0.2%** nationwide.
- NSFC Young Students Basic Research Program (Ph.D. Students)** 2024
National Natural Science Foundation of China (NSFC). Selected candidate in the **first national cohort**; fewer than 600 Ph.D. students across all disciplines in China, and the sole Ph.D. student of the EE Department.
- HIT "Dianzi" Research Student Program** 2023
Harbin Institute of Technology, China. University-level independent PI research project; **sole Ph.D. recipient** of the EE Department.
- China Scholarship Council (CSC) Scholarship** 2023
Chinese government scholarship supporting visiting research at A*STAR, Singapore.
- Special Merit Doctoral Scholarship** 2020
Harbin Institute of Technology, China. The highest university scholarship for incoming Ph.D. students, awarded by the University President to **only 8 Ph.D. students university-wide** (sole recipient across 13 departments at HIT Shenzhen).
- Best Undergraduate Thesis Award** 2020
Harbin Institute of Technology (HIT), China. **One of two recipients** in the EE Department.
- Outstanding Participant, Tsinghua University Graduate Summer Camp** 2019
Tsinghua University, China. Qualified for postgraduate admission.
- Gongjin Scholarship for Overall Excellence** 2018
Harbin Institute of Technology, China. Awarded by the University Vice President to **only 3 students** of the EE Department.
- Provincial Merit Student** 2018
Heilongjiang Province, China. Awarded to the **top 1%** of students in the province.
- First Prize, Chinese Mathematics Competitions (twice)** 2016, 2017
China-wide undergraduate mathematics competition organized by the Chinese Mathematical Society.
- Outstanding Student Award (twice) and First-Class Scholarship** 2017, 2019
Harbin Institute of Technology (HIT), China. Top 10% (Outstanding Student) and top 5% (First-Class Scholarship).

PUBLICATIONS

Aimin Li in bold; underlined authors are students I mentored; # co-first authors; [†] corresponding author.

Journals

- [J1]: *ASTRA: Asynchronous Age-Aware Satellite Random Access with Correlated Multi-Satellite Fusion*. S. Chakraborty, **Aimin Li**[†], Y. Ince, S. Baghaee, and E. Uysal; **under review at** IEEE Transactions on Wireless Communications, 2026.
- [J2]: *Age-Optimal Sampling and Routing under Intermittent Links and Energy Constraints*. A. U. Atasayar, **Aimin Li**[†], Ç. Arı, and E. Uysal; **under review at** IEEE Transactions on Mobile Computing, 2026.
- [J3]: *Source PAC Coding for Low-Latency Secret Key Generation in the Short-Blocklength Regime*. L. Song, D. Zhang, **Aimin Li**, and T. Zhang; **under review at** IEEE Transactions on Information Theory, 2025.
- [J4]: *Multi-Agent Diffusion Planning with Stable Online Reinforcement Fine-Tuning for Cooperative Driving*. H. Bai[#], **Aimin Li**[#], R. Yao, X. Zhao, T. Zhang, X. Zhang, C. Li, L. Gao, and J. Ma; **under review at** IEEE Transactions on Mobile Computing, 2026.
- [J5]: *Permanent Connection Guaranteed Resilient LEO Constellation for Remote Area Communications*. G. Chen, Y. Deng, **Aimin Li**, and S. Wu; IEEE Transactions on Wireless Communications, 2026.
- [J6]: *AoI-Aware Joint Sampling-Buffering-Routing Optimization for Autonomous UAV Swarms via a MARL Approach*. H. Wu, S. Wu, **Aimin Li**, S. Meng, and Q. Zhang; IEEE Transactions on Mobile Computing, 2026.
- [J7]: *Entropy-Driven Sampling for Remote Estimation in Internet of Things Systems*. X. Chen, **Aimin Li**, Y. Deng, and S. Wu; IEEE Internet of Things Journal, 2026.
- [J8]: *Information Freshness and Timeliness Analysis in the Finite Blocklength Regime for Mission-Critical Applications*. D. Zhang, M. Sun, L. Song, S. Jia, **Aimin Li**, T. Zhang, A. Al-Dulaimi, and S. Mumtaz; IEEE Transactions on Communications, 2025.
- [J9]: *MARHO: Hybrid Task Offloading in Maritime MEC via Multi-Agent Reinforcement Learning*. J. Ning, **Aimin Li**, G. C. F. Lee, S. Sun, and T. Yang; IEEE Open Journal of the Communications Society, 2025.
- [J10]: *Effectiveness-Oriented SAGSIN: Unveiling a Unified Metric and a Comprehensive Framework*. S. Meng, S. Wu, H. Wu, **Aimin Li**, and Q. Zhang; IEEE Network, 2024.
- [J11]: *Toward Goal-Oriented Semantic Communications: AoII Analysis of Coded Status Update System under FBL Regime*. S. Meng, S. Wu, **Aimin Li**, and Q. Zhang; IEEE Journal on Selected Areas in Information Theory, 2023.
- [J12]: *Analysis and Optimization of the HARQ-Based Spinal Coded Timely Status Update System*. S. Meng, S. Wu, **Aimin Li**, J. Jiao, N. Zhang, and Q. Zhang; IEEE Transactions on Communications, 2022.
- [J13]: *Partial Self-Concatenation Structure and Performance Analysis of Spinal Codes over Rayleigh Fading Channel*. S. Meng, S. Wu, **Aimin Li**, J. Jiao, N. Zhang, and Q. Zhang; IEEE Transactions on Vehicular Technology, 2022.

- [J14]: *Minimizing Age-of-Information in HARQ-CC Aided NOMA Systems.*
S. Wu, Z. Deng, **Aimin Li**, J. Jiao, N. Zhang, and Q. Zhang; IEEE Transactions on Wireless Communications, 2022.
- [J15]: *A Weighted Graph-Based Handover Strategy for Aeronautical Traffic in LEO SatCom Networks.*
X. Lv, S. Wu, **Aimin Li**, J. Jiao, N. Zhang, and Q. Zhang; IEEE Networking Letters, 2022.
- [J16]: *From Freshness to Effectiveness: Goal-Oriented Sampling for Remote Decision Making.*
Aimin Li, S. Wu, G. C. F. Lee, and S. Sun; IEEE Transactions on Information Theory, 2026.
- [J17]: *Unified Upper Bounds on the ML Decoding Error Probability of Spinal Codes over Fading Channels.*
Aimin Li, X. Chen, S. Wu, G. C. F. Lee, and S. Sun; IEEE Transactions on Wireless Communications, 2026.
- [J18]: *Error Floor of ML-Decoded Spinal Codes in the Finite Blocklength Regime.*
Aimin Li, S. Wu, X. Chen, and S. Sun; IEEE Transactions on Vehicular Technology, 2025.
- [J19]: *Tight Upper Bounds on the BLER of Spinal Codes over the AWGN Channel.*
Aimin Li, S. Wu, X. Chen, and S. Sun; IEEE Transactions on Communications, 2025.
- [J20]: *Toward Goal-Oriented Semantic Communications: New Metrics, Framework, and Open Challenges.*
Aimin Li, S. Wu, S. Meng, R. Lu, S. Sun, and Q. Zhang; IEEE Wireless Communications, 2024.
- [J21]: *Goal-Oriented Tensor: Beyond Age of Information Toward Semantics-Empowered Goal-Oriented Communications.*
Aimin Li, S. Wu, S. Sun, and J. Cao; IEEE Transactions on Communications, 2024.
- [J22]: *Age of Information with Hybrid-ARQ: A Unified Explicit Result.*
Aimin Li, S. Wu, J. Jiao, N. Zhang, and Q. Zhang; IEEE Transactions on Communications, 2022.
- [J23]: *Spinal Codes over Fading Channel: Error Probability Analysis and Encoding Structure Improvement.*
Aimin Li, S. Wu, J. Jiao, N. Zhang, and Q. Zhang; IEEE Transactions on Wireless Communications, 2021.
- [J24]: *Goal-Oriented Communications for Interplanetary and Non-Terrestrial Networks.*
E. Uysal and **Aimin Li**; IEEE Communications Magazine, 2026.

Conference Proceedings

- [C1]: *Worse Routes, Fresher Information: Preemption Redefines Which Route is Best.*
A. U. Atasayar, **Aimin Li**, and E. Uysal; ACM International Symposium on Theory, Algorithmic Foundations, and Protocol Design for Mobile Networks and Mobile Computing (MobiHoc) Workshops, 2026.
- [C2]: *On the Multi-Weight Shift-Sum Iterative Decoding of Short BCH Codes.*
Y. Yang, D. Zhang, **Aimin Li**, Y. Shen, A. A. Frolov, and B. Gu; IEEE Global Communications Conference (GLOBECOM), 2026.
- [C3]: *Capacity Analysis of Weibull Fading Channels for Satellite-Ground Integrated Communications.*
A. Lei, D. Zhang, **Aimin Li**, and E. Khorov; IEEE Vehicular Technology Conference (VTC2026-Spring), 2026.
- [C4]: *Goal-Oriented Bundle Management and Flow Control for Deep-Space Communications via Reinforcement Learning.*
S. Baghaee, **Aimin Li**, S. Balasubramanian, and E. Uysal; International Astronautical Congress (IAC), 2026.
- [C5]: *Fresh Data Delivery: Joint Sampling and Routing for Minimizing the Age of Information.*
A. U. Atasayar, **Aimin Li**, Ç. Arı, and E. Uysal; ACM International Symposium on Theory, Algorithmic Foundations, and Protocol Design for Mobile Networks and Mobile Computing

(MobiHoc), Poster, 2025. **Acceptance rate: 23%.**

- [C6]: *Joint Transmission and Control in a Goal-Oriented NOMA Network.*
K. Liu, S. Wu, **Aimin Li**, and Q. Zhang; IEEE International Conference on Communications (ICC), 2025.
- [C7]: *Optimal Sampling for Uncertainty-of-Information Minimization in a Remote Monitoring System.*
X. Chen, **Aimin Li**, and S. Wu; IEEE Information Theory Workshop (ITW), 2024.
- [C8]: *Packet Management of AoI in the Finite Block-Length Regime.*
M. Sun, D. Zhang, S. Jia, and **Aimin Li**; IEEE International Conference on Communication Technology (ICCT), 2024.
- [C9]: *Deep Reinforcement Learning-Assisted Age-Optimal Transmission Policy for HARQ-Aided NOMA Networks.*
K. Liu, **Aimin Li**, and S. Wu; IEEE Conference on Computer Communications Workshops (INFOCOM WKSHPS), 2023.
- [C10]: *Analysis of GEO Satellite Relay Coded Systems.*
J. Zhang, S. Wu, **Aimin Li**, J. Jiao, and Q. Zhang; IEEE Vehicular Technology Conference (VTC2022-Fall), 2022.
- [C11]: *Analysis and Optimization of Spinal Codes over the BSC: From the AoI Perspective.*
S. Meng, S. Wu, **Aimin Li**, J. Jiao, N. Zhang, and Q. Zhang; IEEE International Conference on Communications Workshops (ICC Workshops), 2021.
- [C12]: *ASTRA: Asynchronous Age-Aware Satellite Random Access via Mean-Field Control.*
S. Chakraborty[#], **Aimin Li**[#], Y. İnce, S. Baghaee, and E. Uysal; Asilomar Conference on Signals, Systems, and Computers, 2026.
- [C13]: *In-Orbit Intelligence or Ground Offloading? Inference Freshness under Intermittent Satellite Connectivity.*
A. N. Pehlivanoglu[#], **Aimin Li**[#], E. Uysal, S. Ciftci, and M. Ozdem; IEEE International Conference on Wireless for Space and Extreme Environments (WiSEE), 2026.
- [C14]: *SCORP: Scene-Consistent Multi-Agent Diffusion Planning with Stable Online Reinforcement Post-Training for Cooperative Driving.*
H. Bai[#], **Aimin Li**[#], R. Yao, X. Zhao, T. Zhang, X. Zhang, L. Gao, and J. Ma; IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2026.
- [C15]: *Age of Information in Time-Varying Multi-Priority Queues.*
B. Karasakal[#], **Aimin Li**[#], and E. Uysal; IEEE Information Theory Workshop (ITW), 2026.
- [C16]: *Tight Upper Bounds on the Error Probability of Spinal Codes over Fading Channels.*
X. Chen[#], **Aimin Li**[#], and S. Wu; IEEE International Symposium on Information Theory (ISIT), 2023.
- [C17]: *Idle Space: Symbiotic Throughput in AoI-Optimal Status Update Systems.*
Aimin Li and E. Uysal; **under review at** IEEE Conference on Computer Communications (INFOCOM), 2027.
- [C18]: *Taming the Heavy Tail: Age-Optimal Preemption.*
Aimin Li, Y. İnce, and E. Uysal; IEEE International Symposium on Information Theory (ISIT), 2026.
- [C19]: *Optimal Sampling and Scheduling for Remote Fusion Estimation of Correlated Wiener Processes.*
Aimin Li and E. Uysal; Allerton Conference on Communication, Control, and Computing, 2025.
- [C20]: *Sampling to Achieve the Goal: An Age-Aware Remote Markov Decision Process.*
Aimin Li, S. Wu, G. C. F. Lee, X. Chen, and S. Sun; IEEE Information Theory Workshop (ITW),

2024.

- [C21]: *Goal-Oriented Tensor: Beyond AoI Towards Semantics-Empowered Goal-Oriented Communications*. **Aimin Li**, S. Wu, and S. Sun; IEEE Wireless Communications and Networking Conference (WCNC), 2024.
- [C22]: *Analyzing Age Performance of Hybrid-ARQ: A Unified Explicit Result*. **Aimin Li**, S. Wu, Y. Deng, J. Jiao, N. Zhang, and Q. Zhang; IEEE Global Communications Conference (GLOBECOM), 2022.
- [C23]: *Spinal Codes over BSC: Error Probability Analysis and the Puncturing Design*. **Aimin Li**, S. Wu, Y. Wang, J. Jiao, and Q. Zhang; IEEE Vehicular Technology Conference (VTC2020-Spring), 2020.

Theses

- [T1]: *Key Technologies for Timeliness-Enhanced Space-Air Communications in Perception-Decision Closed-Loop Systems*. **Aimin Li**; Ph.D. Thesis, Harbin Institute of Technology, 2025. **Best Dissertation Award Nomination**.
- [T2]: *Performance Analysis and Encoding Algorithm Design of Spinal Codes in the Finite Blocklength Regime*. **Aimin Li**; B.S. Thesis, Harbin Institute of Technology, 2020. **Best Undergraduate Thesis Award**.

RESEARCH PROJECTS AND FUNDING

As Principal Investigator

- HIT “Dianzi” Research Student Program (independent PI project), Harbin Institute of Technology, 2023.
- NSFC Young Students Basic Research Program (Ph.D. Students), selected candidate, 2024.

As Researcher

- Swedish Research Council (VR) project on communication and decision-making for distributed systems, PI: Prof. Mikael Skoglund, KTH, 2026 – present.
- ERC Advanced Grant GO-SPACE, PI: Prof. Elif Uysal, METU, jointly with DLR, 2025 – 2026.

RESEARCH LEADERSHIP AND MENTORING

I have initiated and led research collaborations with 22 junior students across three institutions. I shaped the research questions, mathematical models, and solution frameworks, and mentored analysis, simulation, and implementation toward publications and graduate or career placements, including Ph.D. admissions at KTH, Caltech, and HKU. Authorship roles below refer to me.

Middle East Technical University (METU), 2025 – 2026

- **Adem Utku Atasayar** (M.S., 2025–26): co-supervised thesis research on sampling and routing, leading to MobiHoc [C5, C1] (co-author) and a TMC submission [J2] (co-author); now a Ph.D. student at METU.
- **Burak Karasakal** (B.S., 2025–26): mentored research on multi-priority queues, leading to ITW [C15] (co-first author); recipient of the IEEE ITW Student Travel Grant (2026) and admitted to the Ph.D. program at Caltech.
- **Yigit Ince** (M.S., 2025–26): mentored research on preemption and satellite random access, leading to ISIT [C18] (first author), Asilomar [C12] (co-first author), and a TWC submission [J1] (co-

author).

- **Ayşe Nur Pehlivanoglu** (B.S./M.S., 2025–26): mentored research on satellite inference freshness, leading to WiSEE [C13] (co-first author).
- **Sayam Chakraborty** (B.S., 2026): mentored thesis research on satellite random access, leading to Asilomar [C12] (co-first author) and a TWC submission [J1] (co-author); now at ISRO.
- **S. Balasubramanian** (B.S., 2026): mentored thesis research on deep-space communications, leading to IAC [C4] (co-author); admitted to the M.S. program at NUS.
- **Çağrı Arı** (Ph.D.): collaborated on sampling and routing research, including MobiHoc [C5] (co-author); now at Aselsan.
- **Süleyman Çıtır** (M.S.): mentored through research collaboration.
- **Selay Nisa Şahin** (B.S. intern, 2026): supervised a research internship.
- **Yusuf** (B.S. intern, 2026): supervised a research internship.
- **Aral** (B.S. intern, 2026): supervised a research internship.

Harbin Institute of Technology, Shenzhen (HIT), 2020 – 2026

- **Siqi Meng** (B.S./Ph.D., 2020–24): co-supervised undergraduate thesis and doctoral research on timely and goal-oriented communications, leading to WCM, TCOM, TVT, JSAIT, and IEEE Network (first author: [J20]; co-author: [J12, J13, J11, J10]).
- **Xiaomeng Chen** (B.S./M.S., 2023–26): co-supervised undergraduate and master's theses on coding and remote estimation, leading to TWC, IoTJ, ISIT, and ITW (first author: [J17]; co-author: [J7, C7]; co-first author: [C16]); admitted to the Ph.D. program at KTH.
- **Haoxu Wu** (Ph.D., 2025–26): co-supervised research on AoI-aware UAV swarm scheduling, leading to TMC [J6] (co-author).
- **Haojie Bai** (Ph.D.): collaborated on research on cooperative driving, leading to IROS [C14] (co-first author) and a TMC submission [J4] (co-first author); now at Huawei.
- **Kunpeng Liu** (B.S./M.S., 2024–26): co-supervised undergraduate and master's theses on NOMA networks, leading to ICC and INFOCOM Workshops [C6, C9] (co-author); now at Huawei.
- **Jiaming Zhang** (B.S./M.S., 2022–25): mentored undergraduate thesis and master's research on satellite relay coded systems, leading to VTC [C10] (co-author).
- **Xin Jin** (B.S., 2022): co-supervised the undergraduate thesis.

Zhengzhou University (ZZU), 2025 – 2026

- **Aiwei Lei** (B.S., 2026): mentored research on satellite-ground fading channels, leading to VTC [C3] (co-author); admitted to the Ph.D. program at HKU.
- **Yinglei Yang** (M.S., 2026): mentored research on short BCH code decoding, leading to GLOBE-COM [C2] (co-author).
- **Mingxiao Sun** (M.S., 2025): mentored research on finite-blocklength information freshness, leading to TCOM and ICCT [J8, C8] (co-author).
- **Lulu Song** (Ph.D., 2026): mentored research on short-blocklength secret key generation, leading to a TIT submission [J3] (co-author).

TEACHING EXPERIENCE

Teaching Assistant, Foundations of Information Theory (graduate), HIT Shenzhen *Fall 2022*

- Supported the graduate information theory course taught by Prof. Shaohua Wu.

Teaching Assistant, Communication Theory (undergraduate), HIT Shenzhen *Fall 2020*

- Supported the undergraduate communication theory course taught by Prof. Shaohua Wu.

- Workshop Co-Chair, IEEE ICC 2027 Workshop on *World Models for 6G-Native Networked Robotics*
- Guest Editor, *Entropy* (MDPI) Special Issue “Information Freshness and Semantic Communications”, 2026 – 2027
- Guest Editor, *Electronics* (MDPI), 2026
- Session Chair for the Age of Information session at IEEE ITW 2024
- Session Chair for the Distributed Learning session at IEEE GLOBECOM 2024
- Member of the TPC at ICIEEE 2024
- Volunteer, IEEE 6G Summit 2023, Singapore
- Volunteer, IEEE 6G Summit 2024, Singapore
- Volunteer, IEEE VTC2024-Spring, Singapore
- Reviewer for the following journals
 - IEEE Transactions on Information Theory
 - IEEE Journal on Selected Areas in Communications
 - IEEE/ACM Transactions on Networking
 - IEEE Transactions on Mobile Computing
 - IEEE Transactions on Communications
 - IEEE Transactions on Wireless Communications
 - IEEE Transactions on Neural Networks and Learning Systems
 - IEEE Transactions on Vehicular Technology
 - IEEE Transactions on Cognitive Communications and Networking
 - IEEE Internet of Things Journal
 - IEEE Communications Letters
 - IEEE Wireless Communications Letters
 - *Engineering*
 - *Scientific Reports*
 - Elsevier Knowledge-Based Systems
 - Elsevier Computer Networks
 - Elsevier Computer Communications
 - Elsevier Ad Hoc Networks
 - AEÜ International Journal of Electronics and Communications
 - MDPI *Electronics*
- Reviewer for the following conferences
 - IEEE ISIT 2023, 2026
 - IEEE ITW 2026
 - IEEE INFOCOM 2024
 - IEEE GLOBECOM 2022, 2023, 2024, 2025, 2026
 - IEEE WCNC 2022, 2024, 2026
 - IEEE VTC 2022
 - IEEE ICC 2023
 - IEEE ICMLCN 2024
 - IEEE APWCS 2026
 - CSAE 2023
 - ICIEEE 2024

Taming the Heavy Tail: Age-Optimal Preemption

- IEEE ISIT 2026, Guangzhou, China *Jul 2026*
- Research Seminar, Sun Yat-sen University, Shenzhen, China *Jul 2026*

4MT Thesis Presentation, IEEE GLOBECOM 2024, Cape Town, South Africa

3rd Prize, IEEE GLOBECOM 4MT Thesis Competition *Dec 2024*

Sampling to Achieve the Goal: An Age-Aware Remote Markov Decision Process

IEEE ITW 2024, Shenzhen, China *Nov 2024*

Goal-Oriented Tensor: Beyond AoI Towards Semantics-Empowered Goal-Oriented Communications

IEEE WCNC 2024, Dubai, UAE *Apr 2024*

Sampling and Scheduling for Goal-Oriented Communications

Research seminar jointly organized by Harbin Institute of Technology and Peng Cheng Laboratory (PCL), Shenzhen, China *May 2023*

Analyzing Age Performance of Hybrid-ARQ: A Unified Explicit Result

IEEE GLOBECOM 2022, Rio de Janeiro, Brazil, *Online* *Dec 2022*

Spinal Codes over BSC: Error Probability Analysis and the Puncturing Design

IEEE VTC2020-Spring, Antwerp, Belgium, *Online* *May 2020*