

Call for Papers

Communication Theory Symposium

Symposium Co-Chairs

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Scope and Motivation

The Communication Theory Symposium will focus on the fundamentals of communication systems, with emphasis on wireless communications. The Symposium welcomes original and innovative research work in these general areas, focusing on the physical layer and its interactions with higher layers. High quality papers reporting on applications and validation of communications theory from both industry and academia are encouraged.

Topics of Interest

The Communication Theory Symposium seeks original contributions in the following topical areas, plus others that are not explicitly listed but are closely related:

- Adaptive modulation design
- Backscatter communications
- Cache-aided and edge-aided communication
- Channel estimation and synchronization
- Coding theory
- Communication theory aspects of distributed and edge computing
- Communication theory aspects of networking and cross-layer design
- Cooperative communications
- Detection and estimation theory
- Device-to-device and machine-type communications
- Diversity and fading countermeasures
- Edge AI and machine learning in communication systems
- Energy efficient and green PHY layer design
- Feedback in communications systems

- Information theory aspects of wireless communications
- Intelligent radio
- Interference management, cancellation, alignment, and avoidance
- Iterative techniques, detection, and decoding
- Millimeter wave and terahertz communications
- Molecular communications
- Multiple access, radio resource management, and scheduling
- Multiple-input multiple-output (MIMO) systems and massive MIMO
- Network and multiuser information theory
- Novel waveforms and modulation schemes
- Optical communications
- Orthogonal frequency division multiplexing (OFDM) and multi-carrier systems
- Physical layer security
- Privacy in communication networks
- Semantic communications and goal-oriented communications
- Simultaneous wireless information and power transfer
- Source coding and data compression
- Ultra-reliable and low-latency communications
- Ultra-wideband communication systems
- Unmanned aerial vehicles (UAV) communications
- Wireless communications powered by energy harvesting
- Wireless communications through reconfigurable intelligent surfaces

Important Note

The authors of selected papers from this symposium will be invited to submit an extended version of their work for fast-track review and possible publication in the IEEE Open Journal of the Communications Society.

Important Dates

Paper Submission: 11 October 2022

Notification: 18 January 2023

Camera Ready and Registration: 15 February 2023

How to Submit a Paper

All papers for technical symposia should be submitted via EDAS. Full instructions on how to submit papers are provided on the IEEE ICC 2023 website: <https://icc2023.ieee-icc.org/>