



## Call for Papers for *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:**

Topics of interest for the Communication Theory Symposium include, but are not limited to:

- Adaptive modulation and waveform design
- Cache-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
- Energy efficient and green PHY layer design
- Feedback in communications systems
- Information theory aspects of wireless communications
- Interference management, cancellation, alignment, and avoidance

- Iterative techniques, detection, and decoding
- Machine learning in communication systems
- Millimeter wave and Terahertz communications
- Multiple access, radio resource management, and scheduling
- Multiple-Input Multiple-Output (MIMO) systems and massive MIMO
- Network and multiuser information theory
- Optical communications
- Orthogonal Frequency Division Multiplexing (OFDM) and multi-carrier systems
- Physical layer security
- Privacy in communication networks
- Simultaneous wireless information and power transfer
- Source coding and data compression
- Ultra-reliable and low-latency communications
- Ultra-wideband communication systems
- Wireless communications powered by energy harvesting
- Wireless Communications through reconfigurable intelligent surfaces

**IMPORTANT DATES:**

**Deadline for paper submission:** 11 October 2021

**Date for notification:** 18 January 2022

**Deadline for final paper submission:** 15 February 2022