SAC Symposium: Full Duplex Communications

SYMPOSIUM CHAIRS AND CO-CHAIRS

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SCOPE AND MOTIVATION

Full-duplex communications, by which devices transmit and receive simultaneously on the same frequency band, can potentially double the spectral efficiency and allow a more flexible use of the spectrum, therefore making it a promising technology for future wireless networks. However, full-duplex radios suffer from severe self-interference, as well as extra cross-interference between the uplink and downlink caused by simultaneous transmissions, which degrades the overall network performance. To this end, many research groups around the world have proposed new transceiver designs, advanced signal processing and optimization algorithms, implemented novel network prototypes, which have shown the feasibility of full-duplex and its applicability for future wireless networks. The scope of this SAC symposium is to develop SIC and other mitigation techniques, to develop technology enablers and associated physical layer and medium access control layer algorithms. Efficient radio resource management and networking techniques are also encouraged to facilitate full-duplex communications in the next generation of wireless systems.

TOPICS OF INTEREST

- Advanced full-duplex antenna and transceiver designs
- Advanced self-interference cancellation techniques
- Modelling of self-interference and channel measurements
- X-Massive MIMO and mmWave full-duplex transceiver design
- Reconfigurable/ Holographic intelligent surfaces for full-duplex communications
- Multiple access techniques, e.g., NOMA, in full-duplex systems
- Full-duplex techniques with wireless power and energy harvesting
- Full-duplex device-to-device and M2M communications
- Full-duplex UAV and vehicular communications
- Machine learning for full-duplex applications

- Full-duplex cognitive radio/integrated sensing and communication
- Resource allocation, medium access control, and scheduling
- Full-duplex small cell deployments and heterogeneous networks
- Ultra-reliable low-latency MAC and routing protocols for FD networks
- Cross-layer design, virtualization and wireless caching
- Experimental evaluation of full-duplex transceivers and networks

IMPORTANT DATES

Deadline for paper submission: 1 April 2024

Date for notification: 1 August 2024

Deadline for final paper submission: 1 September 2024

SUBMISSION INSTRUCTIONS

All papers for technical symposia should be submitted via EDAS through the following link:

https://edas.info/N31420