



Call for Papers for *Symposium on Selected Areas in Communications* *Full-Duplex Communications Track*

TRACK CHAIR:

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SCOPE AND MOTIVATION:

Full-duplex (FD) technology, 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, FD radios suffer from severe self-interference (SI), as well as extra cross interference between the uplink and downlink caused by simultaneous transmissions, which further degrades the overall network performance. The feasibility of FD and its applicability for future wireless networks have been demonstrated. However, there are many challenges and open problems to resolve on FD operation and achieve the full potential of FD transmission. The motivation of this Symposium on SAC: Full-Duplex Communications Track is to the latest original research on FD techniques, protocols, and applications exploring all aspects of future wireless network design. The track welcomes original and innovative research in all technical areas on full-duplex communications, encouraging high-quality papers that report state-of-the-art advances at both industry and academia.

TOPICS OF INTEREST:

The Full-Duplex Communications track seeks original contributions in all areas and levels of wireless and wired communication systems that involve in-band full-duplex (FD), i.e., same-frequency simultaneous transmit and receive (STAR) operation in some relevant form, e.g., wireless system aspects include:

- Advanced antenna and transceiver designs for full-duplex
- Experimental evaluation of full-duplex transceivers and networks
- Advanced self-interference cancellation techniques for full-duplex
- Modelling of self-interference and channel measurements for full-duplex
- MIMO and mmWave full-duplex transceiver design
- Performance analysis of full-duplex transceivers, systems and networks

- New full-duplex MIMO techniques for multiuser interference cancellation
- Non-orthogonal multiple access (NOMA) and full-duplex techniques
- Physical layer security and full-duplex techniques
- Full-duplex relaying and cooperative communications
- Cognitive radio and full-duplex techniques
- Full-duplex techniques with wireless power and energy harvesting
- Full-duplex device-to-device and M2M communications
- Full-duplex small cell deployments, dynamic TDD and heterogeneous networks
- Ultra-reliable low-latency MAC and routing protocols for full-duplex networks
- Cross-layer design and virtualization for full-duplex networks
- Resource allocation, medium access control, and scheduling for full-duplex systems
- Full-duplex techniques for simultaneous sensing and communication
- Full-duplex enabled UAV/satellite/non-terrestrial networks
- Machine learning techniques for full-duplex systems

IMPORTANT DATES:

Deadline for paper submission: 11 October 2021

Date for notification: 18 January 2022

Deadline for final paper submission: 15 February 2022