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## Call for Papers

### Track 4 – Wireless Communications: Fundamentals and PHY

#### Track Chairs:

Koji Yamamoto, Kyoto University, Japan  
Bang Chul Jung, Chungnam National University, South Korea

#### Scope and Motivation:

Wireless communication signals must be carefully designed to overcome and potentially exploit limitations of the wireless channel. To improve efficiency, wireless transceivers design must be designed to fully utilize time, frequency and spatial resources, through techniques that include diversity and multiplexing. In addition, emerging physical-layer techniques are needed for various wireless communication systems. The Wireless Communications: Fundamentals and PHY Track addresses these issues.

#### Main Topics of Interest:

This track seeks original contributions in the following areas, as well as others that are not explicitly listed but are closely related:

- 5G mobile communications/WLAN/PAN systems
- Advanced modulation techniques (OFDM, multi-carrier modulation, and waveform design)
- Antennas and beamforming & massive MIMO
- mmWave communications, hybrid beamforming techniques
- Information theoretic aspects of wireless communications
- Channel modeling, estimation, and equalization
- Fog networks, contents caching, and edge computing techniques
- Cognitive radio & spectrum sharing techniques
- Non-orthogonal multiple access & various multiple access techniques
- Cooperative and relay communications
- D2D/M2M communications for massive IoT and sensor networks
- Interference modeling, coordination, cancellation, and alignment techniques
- Full-duplex communications
- Physical-layer security & anti-jamming techniques
- Positioning and localization techniques
- Green communications & energy efficiency in wireless communications
- Signal processing for wireless communications
- Source and channel coding techniques
- Synchronization techniques
- Ultra-wideband communications

Please visit <http://ccnc2019.ieee-ccnc.org/authors> for information on Paper Submission Guidelines and Author Requirements.