



IEEE International Conference on Communications  
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Empowering Intelligent Communications

## CALL FOR PAPERS

### SELECTED AREAS IN COMMUNICATIONS SYMPOSIUM

### MILLIMETER WAVE COMMUNICATIONS TRACK

#### Track Chair

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#### Scope and Topics of Interest

With the popularization of smart terminals with emerging new applications and the rapid growth of IoT devices, future cellular networks, i.e., the 5th generation (5G) wireless communication networks and beyond, are essentially characterized by very high rates and a large system capacity. Thus, there are strong demands on the new techniques supporting significantly higher rates. A promising way to significantly increase the transmission rates is to use large bandwidth. Since current centimeter spectrum is crowded and widely occupied, it requires to go to higher frequencies, especially to millimeter wave (mmWave) spectrum (30-300 GHz) to provide multi-Giga bit per second (Gbps) rates. Other advantages of mmWave include limited inter-cell interference, low transmission latency, and improved security. All these advantages have made mmWave attractive and a potential key technique for 5G and beyond. Despite the benefits, there are also many challenges to be solved in order to make mmWave practically feasible, such as strong blockages for directional signals, limited the multiplexing gains, complex hardware complexity and high energy consumption etc.

The aim of the Millimeter Wave Communications (MWC) Track of the Symposium on Selected Areas on Communications is to provide a forum that brings together scientists and researchers from all over the world to present their cutting-edge innovations in all aspects of the field. Papers on practical applications and R&D results from industry and academic/industrial collaborations are particularly encouraged.

To ensure complete coverage of the advances in this field, the MWC Track of the SAC Symposium solicits original contributions in, but not limited to, the following topical areas:

- Information-theoretic analysis
- Interference management
- Mobility management
- Performance analysis and optimization
- MIMO and massive MIMO
- Channel modeling and estimation
- Antenna and beamforming design
- Efficient transceiver design
- New waveforms and multiple access
- Cooperative transmission for mmWave networks.
- New applications e.g., V2X, D2D.
- New cellular architectures and modeling
- Modulation and energy efficiency

## **Submission Guidelines**

The IEEE ICC 2019 website provides full instructions on how to submit papers and the paper format.

You will select the desired symposium/track when submitting papers.

**The paper submission deadline is October 14, 2018.**

Only PDF files will be accepted for the review process and all submissions must be done through EDAS at <http://edas.info/>