

**Call for Papers for  
Workshop on Novel Medium Access and Resource Allocation for 5G Networks**

**Workshop Co-Chairs**

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<http://icc2016.ieee-icc.org/cfw>

**Scope**

Dynamic medium access control (MAC) and resource allocation schemes are introduced in 5G systems allowing configuration of network parameters according to traffic conditions and QoE of the users. For example, in small cell scenarios, the amount of instantaneous UL and DL traffic may vary significantly with time and among adjacent cells. Time division duplexing (TDD) has emerged as a viable alternative to traditional FDD allowing dynamic allocation of resources between the uplink (UL) and downlink (DL) within each TDD frame. The introduction of Dynamic MAC also imposes new challenges for coordination, CSI acquisition, resource allocation and interference management. In order to mitigate or avoid the additional UL-to-DL and DL-to-UL interference emerging in the dynamic setting, the system may employ advanced coordinated resource allocation and beamforming, where the transmissions within a coordinating set of nodes are jointly designed. Another challenge of the dynamic MAC approach is to acquire the CSI between the mutually interfering user terminals. In order to support such functionality, the terminals should start performing similar functions as BSs have traditionally done, i.e., being more aware of the neighborhood and measuring the other nodes in the near vicinity and exchanging control information among different nodes.

**Topics of Interest**

This workshop will bring together academic and industrial researchers to identify and discuss technical challenges and recent results related to Novel MAC design for 5G systems.

- Information-theoretic analysis for dynamic MAC
- Novel schemes and algorithms for flexible resource allocation of DL/UL traffic
- Dynamic TDD techniques for 5G wireless communications systems
- Dynamic uplink-downlink optimization in small cells
- Training and channel feedback for dynamic MAC
- Energy saving through dynamic MAC
- Multicell cooperation and coordination based on dynamic MAC
- Interference management issues in dynamic MAC
- Distributed implementation of dynamic MAC schemes
- Simulation and evaluation for dynamic MAC techniques
- Testbed development for dynamic MAC
- Business model for dynamic MAC

**Important Dates**

Paper submission deadline: December 4, 2015  
Acceptance notification: February 21, 2016  
Camera-ready paper: March 13, 2016