IEEE ICC 2021 Workshop on Rate-Splitting (Multiple Access) for 6G

Call For Papers

To efficiently cope with the high throughput, reliability, heterogeneity of Quality-of-Service (QoS), and massive connectivity requirements of future MIMO wireless networks, multiple access and multiuser communication system design need to depart from two conventional and extreme interference management strategies, namely fully treat interference as noise (as commonly used in 4G/5G, MU-MIMO, CoMP, Massive MIMO, millimetre wave MIMO) and fully decode interference (as in Non-Orthogonal Multiple Access - NOMA).

This workshop is dedicated to the theory and applications of general and powerful transmission frameworks based on Rate-Splitting Multiple Access (RSMA). RSMA consists in decoding part of the interference and in treating the remaining part of the interference as noise. This enables RSMA to softly bridge and therefore reconcile the two extreme strategies of fully decode interference and treat interference as noise and provide room for spectral efficiency, energy efficiency and QoS enhancements in a wide range of network loads and user deployments, robustness against imperfect Channel State Information at the Transmitter (CSIT), as well as feedback overhead and complexity reduction.

This International Workshop on Rate-Splitting Multiple Access for Beyond 5G will take place during IEEE ICC 2021 in Montreal, Canada. The workshop will provide a forum for sharing new ideas, hearing recent developments and brainstorming on emerging RSMA for 5G and beyond networks. We aim to bring together leading researchers in the field, both from academia and industry, to share their recent findings and their views on how RSMA can tackle numerous challenges of future generation networks.

Topics of interest include, but are not limited to:

- RSMA to achieve the fundamental limits of wireless networks
- RSMA for multi-user/multi-cell multi-antenna networks
- RSMA-based robust interference management
- RSMA in MU-MIMO, CoMP, Massive MIMO, millimetre wave MIMO, relay, cognitive radio, coded caching, physical layer security, cooperative communications
- RSMA to generalize SDMA and NOMA
- Physical layer design of RSMA-based network
- Coding and Modulation for RSMA
- Cross-layer design, optimization and performance analysis of RSMA
- Implementation and standardization of RSMA
- RSMA applications in massive MTC, massive IoT, V2X, cellular, UAV and satellite networks, etc.

Submission link: [https://edas.info/N27573](https://edas.info/N27573)

Important Dates

Paper Submission Deadline: 19 February 2021
Acceptance Notification: 22 March 2021
Final Paper Submission: 31 March 2021

Keynotes

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