



IEEE ICC 2022 6th Workshop on Rate-Splitting Multiple Access for 6G



General Co-chairs

- **Wonjae Shin**
Ajou University, South Korea
- **Yijie (Lina) Mao**
ShanghaiTech University, China
- **Seok-Hwan Park**
Jeonbuk National University, South Korea

Guest Speaker

- **Aydin Sezgin**
Ruhr-University Bochum, Germany

Main Contact

wjshin@ajou.ac.kr

Important Dates

- ❖ Paper submission deadline:
January 20, 2022
- ❖ Notification of acceptance:
March 6, 2022
- ❖ Camera-ready papers:
March 15, 2022

Submission Link

<https://edas.info/N28800>

Webpage Link

<https://icc2022.ieee-icc.org/program/workshops/ws-6>

Scope

To efficiently cope with the high throughput, reliability, heterogeneity of Quality-of-Service (QoS), and massive connectivity requirements of future multi-antenna 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, MU-MIMO, CoMP, Massive MIMO, millimeter wave MIMO) and fully decode interference (as in Non-Orthogonal Multiple Access - NOMA).

This workshop is dedicated to the theory and applications of a more general and powerful transmission framework based on Rate-Splitting (RS) that consists in decoding part of the interference and in treating the remaining part of the interference as noise. This enables RS 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.

Topics

We seek original completed and unpublished work not currently under review by any other journal/magazine/conference. Topics of interest include, but are not limited to:

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

Paper Submission

The workshop accepts only novel, previously unpublished papers. The page length limit for all initial submissions for review is SIX (6) printed pages (10-point font) and must be written in English. All final submissions of accepted papers must be written in English with a maximum paper length of six (6) printed pages (10-point font) including figures. No more than one (1) additional printed page (10-point font) may be included in final submissions and the extra page (the 7th page) will incur an over length page charge of USD100. For more information, please see IEEE ICC 2022 official website: <https://icc2022.ieee-icc.org/authors>