

IEEE International Workshop on Orbital Angular Momentum Transmission

June 14–18, 2021
Montreal, Canada



Chair

Prof. Chao ZHANG
(Tsinghua University, China)

Co-chairs

Dr. Doohwan Lee
(NTT Corporation, Japan)

Dr. Wen Tong
(Huawei, Canada)

TPC Co-chairs

Prof. Alan E. Willner
(USC, USA)

Prof. Boon S. Ooi
(KAUST, Saudi Arabia)

Dr. Ben Allen
(Oxford University, UK)

Prof. Shilie ZHENG
(Zhejiang University, China)

Main contact

Mr Xuefeng Jiang
jiangxf17@mails.tsinghua.edu.cn

Important Dates

- ❖ Submission Deadline:
February 19, 2021
- ❖ Notification of Acceptance:
March 22, 2021
- ❖ Camera-Ready Papers:
March 31, 2021

Submission link

<https://edas.info/N27513>

Webpage link

<https://icc2021.ieee-icc.org/workshop/ws-7-3rd-workshop-orbital-angular-momentum-transmission>

Scope

OAM is regarded as one of the potential key technologies for B5G and 6G mobile communications. No matter in the optical transmission or the radio wave transmission, OAM has been concerned as the new dimension (or the degrees of freedom) which can provide additional multiplexing and higher spectrum efficiency, e.g. Tbps data rate is aimed with OAM channels multiplexed in the free space backhaul transmission and Pbps data rate is aimed in the optical fiber with OAM mode division multiplexing. In addition, the theoretical study of OAM has already been engaged in the quantum mechanics for a long time. Many researches in the vortex electron show the promising technology in OAM photon radiation and reception, e.g., relativistic electron cyclotron radiation and electron cyclotron masers. Therefore, the third workshop on OAM transmission in ICC 2021 will focus on both the detailed physical theories of OAM and applications in wireless communications. The workshop is expected to provide researchers from academia and industry with an opportunity to exchange scientific ideas, inspire new research, and new contacts for closer cooperation of the state-of-the-art research on OAM transmission and the promising future applications.

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We seek original completed and unpublished work not currently under review by any other journal/magazine/conference.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:

- **OAM multiplexing transmission**
- **OAM antenna design**
- **OAM wave long distance transmission**
- **OAM modulation and coding**
- **Secure communication with OAM**
- **MIMO transmission with OAM**
- **Optical OAM in fiber or in free space**
- **Satellite and space communications with OAM**
- **Quantum theory of OAM photon**
- **Electron vortex beam**
- **Quantum OAM detection**
- **Quantum key distribution with OAM**
- **OAM sensor**

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 2021 official website: <https://icc2021.ieee-icc.org/authors>