

CALL FOR PAPERS



IEEE ICC 2020 Workshop on
**Orbital Angular Momentum
Transmission (OAMT 2020)**
Dublin, Ireland, 7 June 2020

Organizing Committee

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(Tsinghua University, China)

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Workshop Secretary:

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Background and Scope

The OAM wave invokes a great interest, especially in the background of large capacity requirement of 5G, B5G and 6G. The first workshop on Orbital Angular Momentum (OAM) transmission was successfully held in ICC 2019, which focused on electromagnetic wave transmission with Orbital Angular Momentum (OAM). No matter in the optical transmission or the radio wave transmission, the OAM has been concerned as a new dimension (or a degree of freedom) which can provide additional multiplexing and higher spectrum efficiency. Moreover, the theoretical study of OAM has already been engaged in the quantum mechanics for a long time. Many researches of the vortex electron show the promising technology in OAM wave photon radiation and reception, e.g., relativistic electron cyclotron radiation. Therefore, the 2nd workshop on OAM transmission in ICC 2020 will enlarge the scope of the call for paper. Not only the OAM in optical and wireless radio transmissions, but also the deep physical theories and relevant studies are welcome, such as Quantum Electro-Dynamics (QED) analysis of OAM, vortex electron beam, OAM wave quantum sensor, etc. The workshop is expected to be held with the discussion of the state-of-the-art research on OAM transmission and the promising future applications.

The focus of this workshop is on exploring and discussing new technical breakthroughs and applications. To ensure complete coverage of the advances in this field, The workshop calls for original contributions in, but not limited to, the following topics:

- OAM multiplexing transmission in backhaul system
- OAM antenna design
- OAM wave long distance transmission
- OAM modulation and coding
- OAM security communication
- MIMO transmission with OAM
- Optical OAM in fiber and in free space
- Satellite and space communications with OAM
- Acoustic wave with OAM
- OAM wave detection and image
- Quantum theory of OAM photon
- Vortex electron beam and OAM of electron
- OAM quantum sensor
- OAM and SAM coupling

Author Guideline

All submissions should be written in English with a maximum paper length of six (6) printed pages (10-point font) including figures without incurring additional page charges in the standard IEEE two-column conference format. The latex template can be downloaded from www.ieee.org/conferences/publishing/templates.html. Only PDF files will be accepted, and all submissions must be done through EDAS. <https://edas.info/N26821>

Important Date

Submission Deadline: Jan. 27, 2020

Acceptance Notification: Mar. 11, 2020

Final Papers Due: Mar. 25, 2020

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