



## Call for Paper

Orbital Angular Momentum (OAM) has been widely studied in fiber and short-range wireless communications, which is concerned as a new dimension of the electromagnetic wave. The OAM wave can provide additional multiplexing and higher spectrum efficiency besides the traditional dimensions, such as time, frequency, space, power, coding domain etc. Although OAM was originally proposed in optical transmission, the electromagnetic wave transmission with OAM in radio frequency also invokes a great interest, especially in the background of large capacity requirement of 5G and beyond mobile communications in the microwave and millimeter wave band. For example, 100Gbps transmission with 11 OAM channels multiplexed in 28GHz has been reported by NTT in May 2018. In order to realize more promising applications of OAM waves, the theoretical and experimental researches have never been interrupted. In recent years, some exciting results of OAM wave generation and transmission have been reported, such as OAM multiplex transmission aiming 1 Tbps, OAM transmission more than 100 km, OAM index modulation, OAM coding, OAM FSO etc., which lays the theoretical and experimental foundations. However, the outstanding features still lead to the difficulty in antenna design and long distance transmission, such as beam divergence, phase singular point, energy divergence etc.

The workshop is expected to be held with the discussion of the state-of-the-art research on electromagnetic wave transmission with OAM and potential applications. The workshop of electromagnetic wave transmission with OAM solicits original and unpublished work not currently under review by any other conference or journal. 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, this workshop calls for original contributions in, but not limited to, the following topical areas:

- (1) OAM multiplexing transmission
- (2) OAM antenna design
- (3) OAM dimension exploration
- (4) OAM long distance transmission
- (5) OAM wave propagation and channel modeling
- (6) OAM modulation and coding
- (7) OAM security communication
- (8) MIMO with OAM
- (9) OAM data link
- (10) Satellite and space communications with OAM
- (11) Optical OAM in free space
- (12) Integrated OAM data link with radar detection and image

Submission link: <http://edas.info/N25624>

Submission Guideline: see <http://icc2019.ieee-icc.org>

**Submission Deadline: 25 January 2019 2<sup>nd</sup> February 2019**

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