

# IEEE International Workshop on Orthogonal Time Frequency Space Modulation (OTFS) for 6G and Future High-mobility Communications

June 14–18, 2021  
Montreal, Canada



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## Important Dates

- ❖ Paper submission deadline:  
**January 20, 2021**
- ❖ Notification of acceptance:  
February 20, 2021
- ❖ Camera-ready papers:  
March 1, 2021

## Submission link

<https://edas.info/N27513>

## Webpage link

<https://icc2021.ieee-icc.org/workshop/ws-15-1st-workshop-orthogonal-time-frequency-space-modulation-otfs-6g-and-future-high>

## Scope

Communications in high mobility scenarios suffer from severe Doppler spreads, which deteriorate the performance of the widely adopted orthogonal frequency division multiplexing (OFDM) modulation in the current 4G and 5G networks. Recently, a new two-dimensional modulation scheme referred to as orthogonal time frequency space (OTFS) was proposed, where the information symbols are multiplexed in the Delay-Doppler (DD) domain. OTFS provides the possibility to embrace localized delay and Doppler impairments and converts time-frequency selective channels in to an invariant channel in the DD domain. More importantly, OTFS enjoys the full time-frequency diversity of the channel, which is the key to provide reliable transmissions for the future 6G and high mobility communications. This workshop aims at bringing together academic and industrial researchers in an effort to identify and discuss the major technical challenges, recent breakthroughs, and new applications related to OTFS.

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We seek original completed and unpublished work not currently under review by any other journal/magazine/conference.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

- Channel measurement and modeling in the DD domain
- Fundamental information theoretical limits for OTFS
- Signal processing for OTFS transceiver designs
- Machine learning/AI enhanced OTFS
- MIMO and massive MIMO design for OTFS
- Multiple access schemes for OTFS
- Network architectures and protocols for OTFS
- System-level simulation, prototyping, and field-tests
- Joint radar and communication via OTFS
- Transmit and receive window designs for OTFS
- Coded OTFS system performance analysis
- Coexisting of 5G and OTFS signaling
- FDD and TDD OTFS systems
- OTFS for URLLC
- OTFS in non-orthogonal multiple access (NOMA)
- Security and privacy issues in OTFS
- The application of OTFS in mmWave and Tera Hertz

## 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>