Short abstract:

Wireless communications is fastly evolving to meet the rapid growth in Internet and new services. New applications and requirements, such as the ubiquitous connectivity for IOT, high reliability, the ultra-low latency for real-time remote control of machines and tactile Internet applications, represent significant challenges. Recently, a set of new 5G radio access capabilities have been defined and clearly, the CP-OFDM waveform will not be able to satisfy all these requirements. In this talk, we will first review the 5G use cases and requirements. We will then study the different candidates waveforms for 5G mobile radio transmissions from filtered CP-OFDM to UF-OFDM.