



Workshop on Wireless Communications with Limited Feedback (WoWLIFE)

Recently, learning theory and algorithms have been considerably developed by the scientific community in order to exploit the information within the abundance of the available data. At the same time, the increasing number of wireless devices connected to the network presents to service providers several challenges spanning from increasing network capacity to reducing the energy consumption. However, such increasing densification of wireless devices could be exploited in learning the communication conditions and make adaptive communication algorithms less needy of control signaling than those currently used, thus making available more resources to the users. The scope is then to discuss the performance gain that could be achieved under different scenarios of temporal and spatial correlation of both traffic and propagation conditions. Contributions on adaptive communication algorithms minimizing feedback at physical layer (e.g., Zero Forcing precoding in Multi-User MIMO (MU-MIMO) in the large array regime) and at upper layers (opportunistic scheduling, context-aware video streaming, efficient caching) are encouraged for submission.

Topics of interest

- Spatial and temporal correlation models for wireless communications in MU-MIMO
- Adaptive algorithms for CSI acquisition in the large array regime
- Stochastic bandit optimization for opportunistic scheduling
- Distributed learning algorithms for optimal resource allocation accounting for the cost of feedback
- Video streaming optimization for predictable feedback
- Efficient caching, minimizing the amount of control signaling

Committee

- Giuseppe Caire
- Paolo Casari
- Mandar Chitre
- Tolga Duman
- Christophe Laot
- Nicolo' Michelusi
- Roberto Petrocchia
- James Preisig
- Michele Zorzi
- Marc Lelarge
- Laura Toni
- Pascal Frossard
- Joao Alves

- Organizing chairs:**
- Beatrice Tomasi
 - Milica Stojanovic

Key note

We are proud that Prof. Merouane Debbah, director of the Mathematical and Algorithmic Sciences Lab, France Research Center, Huawei Technologies, has agreed to give a keynote talk.

Submission Instructions

Papers related to topics listed above are solicited. Maximum paper length is 6 pages. IEEE paper template is to be used.

Paper Submission	Paper acceptance	Camera-ready	Workshop date
20 th February	22 nd March	29 th March	20 th May