

# **WNC3 workshop in conjunction with the WiOpt 2014 conference**

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Given the growing trend of current multimedia content, future wireless communication networks are expected to be adaptive, to provide increasingly high quality-of-service and seamless connections in dynamic scenarios with ever increasing mobility. Distributed efficient resource management and available spectrum exploitation, cooperation and competition paradigms play a fundamental role towards designing flexible wireless networks capable to offer optimal communication performance from both the individual user and the global network perspective.

The aim of this workshop is to bring together researchers and engineers in an effort to identify and discuss the major challenges related to the design and analysis of the complex interactions in distributed multi-user and multi-provider wireless networks regulated by cooperation and/or competition. Submission of original contributions making use of various analytical tools spanning from information theory to statistical physics, queuing theory, non-commutative algebras and so forth with an emphasis on distributed optimization, game theory, statistical learning, dynamical systems and control theory is highly encouraged. The applications can stem from any wireless scenario, from multi-tier heterogeneous and multi-cellular networks to sensor and relay networks, HARQ retransmission networks, cognitive radio, ad hoc networks and even communications for smart grids.

For other general resource allocation related issues in wireless networks see RAWNET 2014 workshop which is also organized in conjunction with WiOpt 2014.

## **Topics of interest**

- Data dissemination in wireless networks
- Energy management in wireless networks
- Economics-inspired resource management and mechanism design in multi-tier networks
- Physical layer/MAC layer/cross-layer cooperation in wireless networks
- Diversity/multiplexing tradeoff in cooperation protocols
- Efficient relay architectures and relay selection in cellular networks
- Cooperative and competitive strategies for mobile ad-hoc and sensor networks
- Cooperation schemes for resource management in wireless networks
- Distributed scheduling and resource allocation in wireless networks
- Robust design: impact of partial and/or imperfect state information
- Dynamic and adaptive resource management via learning techniques
- Large-scale wireless networks

## **Important dates**

- Paper Submission Deadline: January 19, 2014
- Notification of Acceptance: March 1, 2014

- Camera-ready Paper Deadline: March 15, 2014
- Workshop Date: May 16, 2014

[Download the CFP](#) (PDF).

Workshop website: <http://2014wnc3.ensea.fr>