

International Workshop on Femtocell Networks (FEMnet)

In conjunction with GLOBECOM 2010, Miami, Florida, USA

Workshop Chairs

Tony Q.S. Quek
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Shilpa Talwar, Intel Research
Chee Wei Tan, City Univ. of Hong Kong
David Villasenor, UCLA, USA
Li-Chun Wang, National Chiao-Tung Univ.

Important Dates

Paper Submission:	2 Jul 2010
Acc. Notification:	13 Aug 2010
Camera-Ready:	31 Aug 2010
Workshop:	6 Dec 2010

Call for Papers



Conventional cellular architectures are designed to provide coverage over large areas and support many users. Unfortunately, the conventional cellular architecture has yet to provide the expected throughputs at the cell edge, where users are far from the base station and experience significant interference. This problem is most acute on the uplink, due to constraints on the transmit power of the mobile devices and deployment of aggressive frequency reuse. Another limitation of the macrocell approach is the poor indoor penetration and the presence of dead-spots due to shadowing. Femtocells, small cellular access points in residential homes and offices, are one solution to the problem of improving area spectral efficiency in cellular systems. Femtocell networks can potentially improve spatial reuse by allowing future cellular systems to achieve data-rates comparable to wireless local area networks while retaining the seamless connectivity and mobility of cellular networks.

This workshop will bring together academic and industrial researchers to identify and discuss technical challenges and recent results related to femtocell networks. Topics of interest include but are not limited to the following:

- Downlink and uplink PHY/MAC design for femtocells in 3G, WiMAX, and LTE systems, as well as beyond 4G communication systems
- Interference analysis, avoidance, and mitigation
- Coexistence between a macrocellular network and femtocell network
- Resource allocation techniques
- Closed subscriber group (CSG) versus open-access femtocells
- Power control and power saving mechanisms
- Mobility support and handover
- Cognitive femtocell networks
- Trade-offs between femtocells, picocells, relay networks, and distributed antenna systems
- Comparison with other fixed-mobile convergence (FMC) approaches
- Self organizing networks and issues in self maintenance

The FEMnet 2010 program will feature keynote addresses by **Jeffrey G. Andrews** (UT Austin), **Giuseppe Caire** (USC), and **Merouane Debbah** (Supelec). A panel discussion chaired by **Anthony Soong** (Huawei) with panelists such as **Alex Damnjanovic** (Qualcomm), **Jeffrey G. Andrews** (UT Austin), **Nivi Thadasina** (Samsung), and **Hany Fahmy** (AT&T).

The workshop accepts only novel, previously unpublished papers. Prospective authors are encouraged to submit a 5-page standard IEEE conference style paper to this workshop (including all text, figures, and references) through EDAS submission system (<http://www.edas.info>). (If any problem during submission is encountered, please contact the workshop chair). One additional page may be allowed but with additional publication fee. Accepted papers must be presented at the workshop. The presenter must register for the workshop before the deadline for author registration. Failure to register before the deadline will result in automatic withdrawal of the paper from the workshop proceedings and the program. All papers selected for publication will be included in the IEEE GLOBECOM proceedings and IEEE digital library.



Website: <http://www.docomolabs-usa.com/femnet.html>