



Femtocell Winter School

6-10 February 2012, Barcelona, Spain, <http://femtoschool.cttc.es>

Call for Participation

Femtocells, despite their name, pose a potentially large disruption to the carefully planned cellular networks that now connect a majority of the planet’s citizens to the Internet and with each other. Femtocells – which by the end of 2010 already outnumbered traditional base stations and by March 2012 being deployed at a rate of about five million a year – both enhance and interfere with this network in ways that are not yet well understood. Will femtocells be crucial for offloading data and video from the creaking traditional network? Or will femtocells prove more trouble than they are worth, undermining decades of careful base station deployment with unpredictable interference while delivering only limited gains? Or possibly neither: are femtocells just a “flash in the pan”; an exciting but shortlived stage of network evolution that will be rendered obsolete by improved WiFi offloading, new backhaul regulations and/or pricing, or other unforeseen technological developments?

This unique and unprecedented one-week winter school on femtocells overviews femtocells, demystifies their key aspects, and provides a preview of the next few years, by discussing in great depths the many aspects and facets of the femtocell eco system. The speakers of this one week course is an exclusive set of leading industrials and academics, who have been shaping, driving and designing femtocells and their networked embodiment for the past years.

The workshop will take place at the Castelldefels premises of CTTC, Barcelona, Spain. Places are limited and early registration the only guarantee to ensure attendance. The registration fee is minimal and is to cover the catering over the days.

We welcome you to Barcelona, CTTC and the Femto Winter School 2012, jointly organized by ICT IP BeFemto, ICT STREP Freedom and MC Greenet.

Mischa Dohler, Josep Vidal and Christos Verikoukis
<http://femtoschool.cttc.es>

Confirmed Speakers
» Thierry Lestable (Sagemcom, France)
» Josep Vidal (UPC, Spain)
» Prabhakar Chitrapu (InterDigital, USA)
» Andreas Maeder (NEC, Germany)
» Willem Muller (mimoOn, Germany)
» Marius Pesavento (mimoOn, Germany)
» Mariano López (TTI, Spain)
» Jeff Andrews (Univ. of Texas at Austin, USA)
» Zubin Bharucha (DoCoMo, Germany)
» Massinissa Lalam (Sagemcom, France)
» Sergio Barbarossa (Univ. Rome, Italy)
» Mehrdad Shariat (Univ of Surrey, UK)
» Andrea Garavaglia TBC (Qualcomm, Germany)
» Youngwook Ko (University of Surrey, UK)
» Mehdi Bennis (Univ of Oulu, Finland)
» Lorenza Giupponi (CTTC, Spain)
» Christos Verikoukis (CTTC, Spain)
» Josep Mangues (CTTC, Spain)
» Jaime Ferragut (CTTC, Spain)
» Jose Nunez (CTTC, Spain)
» Mischa Dohler (CTTC, Spain)



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Technical Program

MONDAY – INTRODUCTION DAY

[An Industrial Introduction to Femtocells](#), Thierry Lestable, Sagemcom, France

[Recent Trends in Femtocell Research](#), Josep Vidal, UPC, Spain

[Driving & Drivers of the Femto Forum](#), P. Chitrapu, InterDigital, Femto Forum WG3 Vice Chair, USA

[3GPP LTE Evolved Packet System & Application to Femtos](#), Andreas Maeder, NEC, Germany

TUESDAY – HARDWARE, PHY & COVERAGE DAY

[LTE & LTE-A PHY Layer Overview](#), Willem Mulder & Marius Pesavento, mimoOn, Germany

[Femto LTE-A Hardware Design Challenges](#), Mariano López, TTI, Spain

[Femto LTE-A PHY Layer Design Challenges](#), Marius Pesavento, mimoOn, Germany

[K-Tier Downlink Heterogeneous Network Coverage](#), H. Dhillon & J. Andrews, UT at Austin, USA

WEDNESDAY – INTERFERENCE & RRM DAY

[LTE/LTE-A RRM for Femtocells](#), Zubin Bharucha, Docomo Labs Europe, Germany

[Interference Management in Co-Channel Femtocell Deployment](#), M. Lalam, Sagemcom, France

[Distributed Interference Management in Femtocell Networks](#), Sergio Barbarossa, Univ. of Rome, Italy

[Cross-Layer Scheduling for Emerging Femto Broadband Systems](#), M. Shariat, Univ. of Surrey, UK

THURSDAY – SON DAY

[LTE/LTE-A SON for Femtocells](#), Andrea Garavaglia, Qualcomm, Germany (*tbc*)

[A Unified View on SON Techniques for Heterogeneous Networks](#), Y. Ko, Univ. of Surrey, UK

[Cognitive & Dicitive Femtocell Networks](#), Lorenza Giupponi, CTTC, Spain

[Towards Optimal SON Frameworks](#), Mehdi Bennis, University of Oulu, Finland

FRIDAY – NETWORKING & EXPERIMENTATION DAY

[Energy-Efficient Mob. Mgmt. for the Macro-Femtocell LTE Network](#), Christos Verikoukis, CTTC, Spain

[LTE/LTE-A/BeFEMTO Networking Architecture](#), Josep Mangués, CTTC, Spain

[BeFEMTO Networking Testbed & Experimentation](#), Jose Nunez, Jaime Ferragut, CTTC, Spain

[Closure of Femto Winter School 2012](#), Mischa Dohler, CTTC, Spain