

EURASIP Journal on Wireless Communications and Networking

Special Issue on Femtocells in 4G Systems

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Recent years have witnessed an increasing demand for mobile wireless traffic due to the new types of user terminal and applications. As the demand keeps growing, the capability of current networks will be put at stake in the next few years. One of the major challenges is still the delivery of high throughput at cell edge, indoor and dead-spots, which requires rethinking network paradigms. One of the recent trends is the introduction of femtocells, initially targeting deployments in residential and corporate environment, to get better indoor voice and data coverage, whilst offloading at the same time macrocell traffic and promising to be a cost-effective solution. Femtocells are called to be an integral part of high-performance next-generation wireless systems, (LTE and WiMAX networks) while keeping the seamless connectivity and mobility of conventional cellular networks. This special issue aims at covering the different technical challenges to which femtocell deployments are confronted. Topics of interest may include, but are not limited to, the following:

- ▶ Interference management and coordination: (e)ICIC
- ▶ PHY/MAC layer enhancement techniques
- ▶ Cognitive femtocell networks
- ▶ Channel and interference models
- ▶ Self-organising networks (SON), self-configuration and optimization techniques (e.g. power setting, mobility-robust optimization, load balancing)
- ▶ Resource allocation techniques (RRM)
- ▶ Routing algorithms
- ▶ Mobility support
- ▶ Network architectures and features (e.g. LIPA, SIPTO, IFOM)
- ▶ Trade-offs and benchmarking between femtocells, picocells and relay networks
- ▶ Regulatory aspects (e.g. co-existence, new spectrum, lawful interception) and business cases

Submission Schedule

- ▶ **Manuscript Due:**
October 31, 2011
- ▶ **First Round of Reviews:**
December 2011
- ▶ **Publication Date:**
Spring 2011

Submission Instructions:

Before submission authors should carefully read over the Instructions for Authors, which are located at <http://jwcn.eurasipjournals.com/authors/instructions>. Prospective authors should submit an electronic copy of their complete manuscript through the SpringerOpen submission system at <http://jwcn.eurasipjournals.com/manuscript> according to the submission schedule. They should specify the manuscript as a submission to the “Special Issue on Femtocells in 4G Systems” in the cover letter. All submissions will undergo initial screening by the Guest Editors for fit to the theme of the Special Issue and prospects for successfully negotiating the review process.

Guest Editors

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