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### Important dates

Paper submission:  
**30-08-2010**

Acceptance notification:  
**20-11-2010**

Final papers:  
**30-12-2010**

# Call for Papers

## A Special Issue of –Ad Hoc Networks– On “MODELS AND ALGORITHMS FOR WIRELESS MESH NETWORKS”

The increasing demand of wire-free connectivity has been driving the development of new and easy-to-deploy wireless networking solutions. Within this field, Wireless Mesh Networks (WMNs) are envisioned to provide an effective solution for several services and applications domains, such as community networks and municipal networks. On the other hand, WMN deployments pose several challenges to the network designers and operators. First, WMNs often feature large scales in terms of the number of network devices, users, and services to be supported, and in terms of their geographical dimensions. Further, communication support in WMNs is carried out through the “cooperation” of wireless devices in a multi-hop manner, and it requires different algorithms and protocols (medium access control, routing, transport) that interact in a nontrivial manner. The network designers and operators often do not have complete control over the environment, and hence WMNs must be able to self-configure and adapt to unpredictable changes automatically. Such distinctive features and intrinsic complexity of WMNs call for a deeper understanding on the fundamental principles governing these networks.

To this extent, the design, analysis and deployment of WMNs require quantitative methods to plan/optimize the network structure, to assess the network performances (e.g., in terms of, throughput, delay and energy consumption), as well as to steer the design of low-complexity centralized/distributed algorithms and communication protocols.

The purpose of this special issue is to collect papers on cutting-edge research about the theoretical foundations of wireless mesh networking. Contributions are solicited within the two broad fields of performance evaluation and algorithm design for WMNs. The submitted paper must have a consistent analytical and theoretical flavor. Contributions with experimental performance evaluation only fall outside the scope of the special issue.

For more information  
[www.elsevier.com/computerscience](http://www.elsevier.com/computerscience)



## Topics of Interest

Topics of interest include (but are not limited to):

- + Throughput, capacity, and delay analysis for WMNs
- + Geometric and non-geometric models and bounds for WMNs
- + Spatial Stochastic Models for WMNs
- + Information theoretic analysis for WMNs
- + Scaling Laws for WMNs
- + Optimization models/algorithms for planning and radio resource management in WMNs
- + Power-aware and energy-efficient algorithms for WMNs
- + Centralized/Distributed algorithms for Radio Resource Management in WMNs
- + Centralized and Distributed algorithms for network management
- + Traffic Models in WMNs
- + Complexity analysis of algorithms for WMNs
- + Clustering and cooperative strategies for WMNs

## Submission format

The submitted papers must be written in English and describe original research which is not published nor currently under review by other journals or conferences. Author guidelines for preparation of manuscript can be found at <http://www.elsevier.com/locate/adhoc>

## Submission Guideline

All manuscripts and any supplementary material should be submitted through Elsevier Editorial System (EES). The authors must select as “[Special Issue: WMNs Modeling](#)” when they reach the “Article Type” step in the submission process. The EES website is located at: <http://ees.elsevier.com/adhoc/>

## Guide for Authors

This site will guide you stepwise through the creation and uploading of your article. The guide for Authors can be found on the journal homepage (<http://www.elsevier.com/locate/adhoc>).