



CALL FOR PAPERS

SYMPOSIUM ON SELECTED AREAS IN COMMUNICATIONS

GAME THEORY FOR COMMUNICATIONS TRACK

Track Chair

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Scope and Topics of Interest

Game theory has found countless applications in communication and networking recently, mainly due to (1) the emergence of the Internet as a global platform for computation and communication, which has sparked the development of large-scale, distributed and heterogeneous communication systems; (2) the deregulation of the telecommunication industry and the dramatic improvement in computation power, which make it possible for various network entities to make independent and selfish operational decisions; and (3) the need for robust design against uncertainties that can be modeled as games between users and malicious entities. Game theory can provide tools to enhance our understanding of complex communication systems and help us design more efficient, scalable and robust communication protocols and resource allocation algorithms. Topics of interest include (but are not limited to):

- Wireless resource allocation through game theory
- Game-theoretic tools for cognitive radio networks
- Use of game theory in cooperative communications
- Control of peer-to-peer and overlay networks through game theory
- Game-theoretic medium access control, routing, and congestion control
- Games in Information theoretical problems
- Game theoretic security and privacy
- DSL spectrum management through game theory
- Stackelberg and Wardrop equilibria
- Nash and dynamic bargaining models
- Cooperative games
- Multi-stage and repeated games
- Contract and auction design
- Spatial and graphical network games
- Efficiency loss compared with optimization model (i.e., price of anarchy)
- Games with imperfect or asymmetric information
- Effects of bounded rationality
- Learning mechanisms in games
- New equilibrium and non-equilibrium concepts relevant to communication systems
- Equilibrium computation for networks

Submission Guidelines

Prospective authors are invited to submit original technical papers by the deadline of **15 March 2013** for publication in the IEEE Globecom 2013 Conference Proceedings and for presentation at the conference. Submissions will be accepted through **EDAS**. All submissions must be written in English and be at most six (6) printed pages in length, including figures. For full details, please visit the following website:

<http://www.ieee-globecom.org/2013/submguide.html>