

Call for Papers
IEEE Signal Processing Society
IEEE Journal of Selected Topics in Signal Processing

Special Issue on Game Theory in Signal Processing

Game theory is a branch of mathematics aimed at the modeling and understanding of rational behavior in strategic situations. Originally, game theory was applied to solve conflict problems in economics, and has since found important applications in politics, sociology, psychology, and transportation. Game theory has more recently been employed to model and analyze modern communication systems, such as power control in wireless networks and routing in wire line networks. Also, it provides a structured approach to many important signal processing problems, including cognitive radio, waveform design, and dynamic spectrum access. Game theory has been successfully applied to design decentralized algorithms and robust signal processing methods in various scenarios. This special issue aims at bringing innovative contribution and state-of-art research progress focusing on game theory with explicit application in signal processing.

We invite original and unpublished research contributions in all areas relevant to the theory and practice of game theory in signal processing. The topics of interest include, but are not limited to:

- Static non-cooperative games and Bayesian games, correlated equilibrium
- Finite and infinite dynamic games
- Cooperative (bargaining) game theory
- Auctions, coalitions, and pricing
- Game theory for resource allocation in communications
- Game theory for adaptive waveform design
- Game theory for cognitive radio and dynamic spectrum access
- Stochastic games, repeated games, and fading channels
- Adaptive filtering/stochastic approximation algorithms for game theoretic learning
- Decentralized resource allocation and sensor activation using game theory

Prospective authors should visit <http://www.signalprocessingsociety.org/publications/periodicals/jstsp/> for information on paper submission. Manuscripts should be submitted using the Manuscript Central system at <http://mc.manuscriptcentral.com/jstsp-ieee>. Manuscripts will be peer reviewed according to the standard IEEE process.

Manuscript submission due:	Mar. 27, 2011
First review completed:	June 20, 2011
Revised manuscript due:	July 20, 2011
Second review completed:	Sept. 20, 2011
Final manuscript due:	Oct. 20, 2011

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