

# CALL FOR PAPERS

## ACM Transactions on Internet Technology

### Theme Section on Pricing and Incentives in Networks and Systems



#### ACM Transactions on Internet Technology

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##### IMPORTANT DATES:

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Today's communication networks and networked systems are highly complex and heterogeneous, and are often owned by multiple profit-making entities. For new technologies or infrastructure designs to be adopted, they must not be only based on sound engineering performance considerations but also present the right economic incentives. Recent changes in regulations of the telecommunication industry make such economic considerations even more urgent. For instance, new concerns such as network neutrality have a significant impact on the evolution of communication networks.

At the same time, communication networks and networked systems support increasing economic activity based on applications and services such as cloud computing, social networks, and peer-to-peer networks. These applications pose new challenges such as the development of good pricing and incentive mechanisms to promote effective system-wide behavior. In relation to these applications, security and privacy also require consideration of economic aspects to be fully understood.

The aim of this theme section is to bring together state-of-the-art research contributions on the application of economic and game-theoretic models and principles to address challenges in the development of networks and network-based applications and services. We invite submission of original completed work not currently under review by any other journal describing theoretical/methodological contributions or applications to cases of interest. Topics of interest include (but are not limited to):

- Pricing of resources in communication networks, grids, and cloud computing
- Pricing of online goods, copyright issues, effect of network structure (e.g., social network)
- Economic issues in universal broadband access and economics of peering
- Effect of market structure and regulations (e.g., network neutrality)
- Economics of networks security and privacy
- Auctions and applications to networks: spectrum auctions, auction-based marketplaces for network and cloud resources
- Incentive mechanisms for networks: peer-to-peer systems, clouds, wireless networks, spam prevention, security
- Methods for engineering incentives and disincentives (e.g., reputation, trust, control, accountability, anonymity)
- Empirical studies of strategic behavior (or the lack thereof) in existing, deployed systems
- Design of incentive-aware network architecture and protocols
- Game-theoretic models and techniques for network economics: large games, learning, mechanism design, interaction of game theory and information theory or queuing theory, information exchange, diffusion, dynamics of cooperation and network formation, trades in social and economic networks
- Algorithmic mechanism design
- Critiques of existing models and solution concepts, as well as proposals of better models and solution concepts
- Studies of polarization, online collaboration, crowdsourcing, and human computation

Initial submissions must be at most 20 pages and comply with the ACM Transactions on Internet Technology policies. Authors can add a clearly marked appendix (with no space limit) not counting towards the 20-pages limit. In case of acceptance, this appendix will appear as a digital appendix available on the ACM digital library. Please refer to <http://toit.acm.org/submission.html> for complete formatting and submission instructions.