

## Editors' Introduction

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We are very happy to introduce Issue 10.1 of SIGecom Exchanges.

This issue starts with a letter by Echenique, Golovin, and Wierman on an interesting and provocative line of work – whether computational complexity of economic problems has any empirical consequences. For the theory of the consumer, they show that a data set either falsifies the utility maximizing behavior of agents or is compatible with it and the agent's utility maximizing problem is computationally tractable.

The next six letters concern several game-theoretic or mechanism design topics. Jiang and Leyton-Brown discuss interesting developments regarding the computation of a correlated equilibrium in compactly represented games. Wright, Jiang, and Leyton-Brown report on their experience on finding Nash equilibria in general  $n$ -player games by using a constructive reduction to linearize the games and then applying a two-player algorithm. Kalai and Kalai show that previous solutions to study cooperation in bimatrix games coincide when side payments are allowed. The general solution is based on decomposing a bimatrix game into a competitive game and a cooperative game, and the authors provide a set of axioms characterizing this solution. Bachrach, Zadimoghaddam, and Key discuss the stability of coalition formation in multi-unit auctions and path procurement auctions. Ligett and Piliouras discuss a recent line of work that shows that selfish adaptive play can achieve arbitrarily higher social welfare than the best Nash equilibrium in repeated games. Finally, Kakade, Lobel, and Nazerzadeh consider the problem of designing revenue maximizing mechanisms for dynamic settings and propose a simple optimal dynamic mechanism for a fairly general separable environment.

The last two letters of this issue concern applications of and experiments in game theory. An, Pita, Shieh, Tambe, Kiekintveld, and Marecki provide an overview of two recent applications of security games and discuss the associated new challenges. Zinkevich, Bowling, and Wunder discuss the objectives of and their experience with the Lemonade Stand Game Competition.

Finally, there are the puzzles. Our new Puzzle Editor, Daniel Reeves, brings the Baffling Ruffling puzzle by Littman and Reeves. The puzzle concerns an auction where bidders purchase raffle tickets and the probability that a given bidder receives the good is proportional to the number of tickets he or she bought. There is also a solution by Romm to Issue 8.2's puzzle, A Dutch Dutch Auction Clock Auction.

We would like to thank our new Information Director, Felix Fischer, who has been very helpful in putting this issue together.

Yiling Chen and Vincent Conitzer  
Editors-in-Chief