Editor's Introduction

I am very happy to introduce Issue 8.2 of SIGecom Exchanges.

The first four contributions concern game theory. The first contribution is a full-length paper by Demaine, Hajiaghayi, Mahini, and Zadimoghaddam, titled "The Price of Anarchy in Cooperative Network Creation Games." In it, they study network creation games, in which the nodes of a graph decide which edges to create. They study "collaborative equilibrium" in which coalitions do not want to change their collective strategy on a single edge, and analyze the price of anarchy in this model. In "Computing Shapley's Saddles," Brandt, Brill, Fischer, Harrenstein, and Hoffmann discuss the computational complexity of saddles, an ordinal, set-valued solution concept defined by Shapley. In "A Prescriptive Approach for Playing Games," Feldman gives an overview of two recent papers on two-player zero-sum games: one of these papers considers a model in which the randomization phase of a randomized strategy is not completely private, and the other considers repeated symmetric games in which one player never observes a single payoff (but does observe the opponent's play). Finally, Pita, Bellamane, Jain, Kiekintveld, Tsai, Ordóñez, and Tambe consider some real-world applications of game theory at Los Angeles International Airport and the US Federal Air Marshals, and discuss some of the challenges in applying game theory to practice, in their letter "Security Applications: Lessons of Real-World Deployment."

The next four contributions consider the design of auctions, exchanges, and other mechanisms. In "Secretary Problems and Incentives via Linear Programming," Buchbinder, Jain, and Singh discuss their linear programming technique for finding and analyzing mechanisms for the secretary problem and its variants. In "Mechanism Design for Dynamic Settings," Cavallo discusses mechanism design in dynamic settings, where the agents learn new information over time and consequently must potentially report private information in every period. In "Impression-Plus-Click Auctions," Goel, Lahaie, and Vassilvitskii consider sponsored search auctions, and they describe a truthful auction mechanism in which a bidder ends up paying (or being paid) for impressions as well as clicks. Finally, in "AdX: A Model for Ad Exchanges," Muthukrishnan describes the AdX model for Internet advertisement exchanges between publishers and ad networks that represent advertisers.

Finally, there are the puzzles. The new Editor's Puzzle asks for the equilibrium of a Dutch auction in which its own auction clock is for sale, and may break during the auction. There is also a solution by Airiau, Endriss, and Halpern to the previous issue's puzzle, in which they demonstrate that the champion will be identified, and show how long it takes, by drawing a connection to the muddy-children puzzle.

I would like to thank the reviewers for this issue, as well as our Information Director Daniel Reeves who has once again been very helpful in putting this issue together.

Enjoy!

Vincent Conitzer
Editor-in-Chief