

Editors' Introduction

IRENE LO

Stanford University

and

INBAL TALGAM-COHEN

Technion – Israel Institute of Technology

This winter issue of SIGecom Exchanges brings to our readers a letter from the SIGecom executive committee, the job candidate profiles for 2023, a survey, an annotated reading list, three research letters, and a featured interview.

The 2023 SIGecom Job Candidates Profiles are compiled by Jason Hartline and Vasilis Gkatzelis. This is the eighth year of this welcome annual tradition. For the third time we also have the 2023 Market Design Job Candidate Profiles, compiled by Yannai Gonczarowski, Assaf Romm, and Ran Shorrer. We thank Jason, Vasilis, Yannai, Assaf, and Ran for their continuing contribution to the profile and health of our community.

For readers looking to educate themselves on a new topic, this issue includes a survey and an annotated reading list. Kshipra Bhawalker, Guru Guruganesh, Sébastien Lahaie, Andres Perloth, and Balasubramanian Sivan provide a collection of vignettes on research developments and challenges in designing markets for search ads and display ads. These vignettes are written primarily from the perspective of researchers in industry, and provide open questions and directions for future study. Kangning Wang offers a compilation of works on designing socially efficient mechanisms for bilateral trade. Included in the reading list are works on approximately efficient bilateral trade which recently appeared in EC, STOC, WINE, and ITCS.

A letter from Martino Banchio and Andrej Skrzypacz describes results from several of their recent works, including their work which was selected as the Exemplary AI Track Paper at EC'22. These results explore how market design affects play and potential collusion between artificial intelligence algorithms such as Q-learning. Yaonan Jin and Pinyan Lu present in their letter the main result in their recent FOCS'22 paper, which fully determines the price of anarchy of the first price auction, closing the gap between previously known lower and upper bounds. Juba Ziani, who we feature in this issue's follow-up coverage on the 2022 SIGecom Winter Meeting, introduces exciting new work on how differential privacy can be used to change individuals' incentives to share personal data, leading to better models.

The issue ends with a special feature interview of Juba Ziani, who gave a tutorial on algorithmic fairness at the 2022 SIGecom Winter Meeting. The interview, conducted by graduate student Yahav Bechavod, highlights themes from the tutorial and Juba's work on algorithmic fairness, and rounds out our interviews of the speakers at the 2022 SIGecom Winter Meeting.

Author's address: ilo@stanford.edu, italgam@cs.technion.ac.il.

We hope you enjoy this issue. As always, please do not hesitate to reach out to us if you would like to volunteer a letter, survey, annotated reading list or position paper. Many thanks also to Yannai Gonczarowski for his continuing help in putting together the issues of Exchanges. We hope you find the research showcased in this issue inspiring!