



International Conference

“Algorithmic Aspects of Social Choice and Auction Design”

August 09-10, 2018

Saint-Petersburg, Russia

Speaker: **Nisarg Shah**

Title: **Fair and Efficient Collective Decisions**

Abstract: Algorithms are increasingly making decisions that affect humans. The field of computational social choice deals with algorithms for eliciting individual preferences and making collective decisions. Everyday examples of such decisions include citizens electing their representatives, roommates dividing collectively purchased items, or residents voting over allocation of city's budget. Making reasonable collective decisions requires viewing the problem through the lenses of elicitation, fairness, efficiency, incentives, and ethics.

In this talk, I will describe how these considerations affect real-world decision making both in theory and in practice. I will focus on allocation of private and public goods. Along the way, I will use as examples our two recent endeavors, Spliddit.org and RoboVote.org, which help people make provably fair collective decisions in everyday scenarios.

Bio: Nisarg Shah (<http://www.cs.toronto.edu/~nisarg>) is an Assistant professor in the Department of Computer Science at the University of Toronto. His research lies at the broad intersection of *computer science* and *economics*. Shah is interested in the issues of elicitation, aggregation, fairness, and incentives that arise from interaction of multiple agents. His recent research has focused on fairness, exploring what it means, and designing provably fair algorithms for different settings. Shah received his Ph.D. from Carnegie Mellon University, and was a postdoctoral researcher at Harvard University. He is the winner of the 2013-2014 Hima and Jive Graduate Fellowship, the 2014-2015 Facebook Fellowship, and the 2016 Victor Lesser Distinguished Dissertation Award.
