

Program

10:30–10:45	Welcome
10:45–11:30	Krzysztof R. Apt (CWI and University of Amsterdam, The Netherlands) <i>Coordination games on graphs</i> Abstract: Consider the following strategic game on a finite graph. The players are the nodes. Each node selects a colour from a set of colors (privately) available for it. The payoff to a node is the number of neighbours who chose the same colour. These games capture the idea of coordination in the absence of common strategies. We show that they have an exact potential and have strong equilibria when the underlying graph is a pseudoforest. We also discuss the bounds on the price of stability and anarchy for the notions of k -equilibria and strong equilibria. This is a joint work with Mona Rahn, Guido Schaefer and Sunil Simon.
11:30–11:45	Coffee
11:45–12:30	Edith Elkind (University of Oxford, UK) <i>Voting as maximum likelihood estimation: old and new results</i> Abstract: There are two complementary views of voting. The first view is that voters have genuinely different preferences, and the goal of voting is to reach a compromise among the voters. The second view is that there is an objectively correct choice, and voters have different opinions simply because of errors of judgement. The latter view, which dates back to medieval church elections, gives rise to the maximum likelihood-based approach to voting: we treat votes as noisy estimates of the ground truth, and attempt to identify the ground truth that is most likely to generate the observed votes, under a given model of noise. In this talk, I will give an overview of voting rules that arise in this framework and relationships among them. Based on joint work with Nisarg Shah (UAI '14).
12:30–13:30	Lunch
13:30–14:15	Stefano Leonardi (Sapienza University of Rome, Italy) <i>Revenue Maximizing Envy-free Auctions with Budgets</i> Abstract: We study envy-free mechanisms for multi-unit auctions with budgeted agents that approximately maximize revenue. In an envy-free auction, prices are set so that every bidder receives a bundle that maximizes her utility amongst all bundles. We study several variants of this problem. We present an auction that charges a fix price for each unit of a bundle that runs in polynomial time and provides a approximation of $1/2$ with respect to the revenue-maximizing auction. However, we also show the existence of an FPTAS if we compare against an optimal fix-price auction. Unit demand auctions, multi-unit auctions with matching preference constraints and several open problems will also be discussed.
15:45–16:45	PhD defense by Bart de Keijzer, Aula, VU University, De Boelelaan 1105, Amsterdam <i>Externalities and Cooperation in Algorithmic Game Theory</i>