COST Action IC1205 on Computational Social Choice: STSM Report

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During my visit at Tel Aviv University, I closely worked with my host Svetlana Obraztsova.

We considered strategic candidacy games where candidates are "keen"—that is, biased to run in the election, unless their withdrawal is clearly beneficial. Such behaviour is typical to domains where participation cost is not an issue, while it may be harmful for the candidate's reputation to disappear from the election scene.

In these scenarios, we explored the existence and quality of Nash equilibria and compared them with the previously studied models. Specifically, we observed that in cases where a reward for participation is large, a Nash equilibrium always exists and is unique. However, in important cases where a reward for participation is only large enough to cover the difference in the utility from candidates belonging to the same subset (say, a party), but is less than the difference in the utility from candidates from different parties, the existence of equilibrium is not guaranteed. We also find that equilibria may not exists in Copeland elections (while they always do in candidacy games with unbiased candidates), or that a Condorcet winner may not be a winner in the (existing) equilibrium. Finally, we evaluted the (additive) Price of Anarchy as $n/2$, where n is the number of voters.