

COST Action IC1205 on Computational Social Choice: STSM Report

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During my visit at the University of Amsterdam, I closely worked with Ulle Endriss and Maria Polukarov from University of Southampton, who was visiting there at the same time.

We explored the convergence of equilibrium dynamics in voting games with different levels of information to the voters: incomplete, imperfect, or both. For instance, in case of incomplete information, voters may only be provided with the winners of the election, or the scores of the candidates, or the corresponding (weighted) majority graph, rather than with full voting profiles. Moreover, if the information is also imperfect, they would be only informed about a set of possible winners, intervals of scores, majority graphs with missing edges or intervals of weights.

Specifically, we considered better and best response dynamics, where the voters would make either only safe choices or those that are “likely” to be safe. We also looked at two variants of convergence: the proper convergence where no voter has an incentive to make a move, or convergence to a winner, where no further move would change the winner of election. We established several results for Plurality, Borda, Copeland and Maximin.