

Cost Action IC1205 on Computational Social choice: STSM Report

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Purpose of the STSM:

Klamler (2008) introduces for the first time a measure on choice functions which exhibits features like the Kemeny (1959) distance on rankings. Can (2014) generalizes the Kemeny distance on rankings to position sensitive distances. Recent work has shown that metrics on rankings can be somewhat easily adapted to metrics on choice functions.

Description of the work carried out:

During my visit I had the chance to implement some algorithms that provide these measures on choice functions with Dr. Burak Can at Maastricht University. We mainly focused on his earlier joint work with Klamler and Darmann about measuring irrationality in choice functions and discussed on developing a program to experiment with real users. We outlined and designed the main objectives of the program. The program allows tester to create input sets of subjects and options and to modify subsets for the questionnaire. In runtime, results and relevant knowledge such as time is also measured in the program. The basic version of the program was developed during my visit in Maastricht, School of Business and Economics.

Future Work:

Depending on the results of the experiments, we are planning to gather sufficient statistical data to widen and enhance the irrationality measurements. Additionally, we aim to develop heuristic algorithms to achieve similar results with fewer questions.