

COST Action IC1205 on Computational Social Choice: STSM Report
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Report

I was hosted by University of Graz in Graz, Austria. The visit has been most fruitful.

C. Klamler, A. Darrman, and I had results on three different metrics on choice functions. Two of them are fully characterized, one is still work in progress. In fact we have re-characterized axiomatically one metric that was proposed in Klamler (2008). We introduced a new metric based on a class of metrics on rankings in Can (2012) into the choice setting. We also analyzed a particularly interesting weighted metric on choices which exhibits an exponential weight on the size of the subsets on which two choices disagree.

The preliminary result on one of the metrics, and the complete characterization of the two other convinces us of a sound possibility to publish this work in a good quality journal. The implications of this research will deepen our understanding about how we can measure irrationality by looking at how difficult it is (metric-wise), to transform the irrational choices of individuals into those that are rational.

The findings in this project will help us for future research to check for how metrics on choices could be used to “reveal” metrics on rankings, in a WARP setting.

References

- B. Can, 2012. "Weighted Distances Between Preferences," Research Memoranda 057, Maastricht : METEOR, Maastricht Research School of Economics of Technology and Organization.
- C. Klamler, 2008. "A distance measure for choice functions," Social Choice and Welfare, Springer, vol. 30(3), pages 419-425, April.