

COST Action IC1205 on Computational Social Choice: STSM Report

Applicant: Seckin Ozbilen

Home institution: Istanbul Bilgi University

Home country: Turkey

Host: Burak Can

Host institution: Maastricht University

Host country: the Netherlands

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I was hosted by Dr. Burak Can at Maastricht University. I was allowed to benefit from all the facilities because the School of Business and Economics recognized my visit. During the action period, I studied closely and regularly with Dr. Burak Can. This visit has been very productive, because we have laid the foundations of a working paper and several possible future research questions.

Firstly, under different preference profiles and domain restrictions, we have re-written Chung's (Chung, 2000) ring definition for hedonic coalition formation games. For some domains, "no odd ring condition" is still the sufficient condition for the existence of core stable coalition partitions. For other domains, it is no more sufficient by itself. We are still working on the conditions that ensure non-emptiness of the core under narrow and wide definitions of a ring. Secondly, we have worked on Chung's other economically interpretable sufficient conditions (dichotomous, echoic, antagonistic, single-peakedness, single-cavedness, two group separability, extremal restriction, limited agreement, and having taboos). We have observed that some of the conditions are still meaningful in our settings, but some of them become meaningless in hedonic coalition formation setting.

References

Chung, K.S. (2000) "On the Existence of Stable Roommate Matchings", *Games and Economic Behavior* **33**, 206-230.