

COST Action IC1205 on Computational Social Choice: STSM Report**Applicant:** Peter Biro**Home institution:** Hungarian Academy of Sciences**Home country:** Hungary**Host:** Jerome Lang**Host institution:** Paris Dauphine**Host country:** France**Dates:** 06/05/2015 to 14/05/2015

During my research visit I could have very useful discussions with Jerome Lang and his local colleagues, Julien Lesca in particular, and I was also lucky to have Haris Aziz there at the same time. We mostly discussed research questions which are related to a recent work of mine, joint with Flip Klijn and Szilvia Papai, on 'Circulation under Responsive Preferences'. The underlying problem is motivated by the Erasmus exchange program, and it belongs to two wide topics of COMSOC: matchings and fair division. Jerome and Haris could explain me the most related results from the latter literature, and in particular they answered my question on the complexity of checking whether a given solution is Pareto-optimal. We could actually identify some related questions that can be investigated in a future research. Julien Lesca has also explain to us their recent paper on a closely related model (the main difference between our models is that we work with responsive preferences and they focus on lexicographic preferences, whilst our agents have homogeneous goods and their agents have heterogeneous goods). Nevertheless, in both papers a generalised TTC algorithm is studied, and actually Julien could answer my question on the complexity of manipulating this process by modifying their construction in their hardness proof. Therefore this line of research can also lead to a collaboration in the near future.

On 13 May I gave a seminar talk on the above mentioned paper of ours, and I have received many useful comments. I thank for the opportunity for making this visit.