

## **COST Action IC1205 on Computational Social Choice: STSM Report**

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**Host:** Attila Tasnádi

**Host institution:** Corvinus University of Budapest

**Host country:** Hungary

**Dates:** 20/01/2015 to 20/03/2015

The aim of the visit was to develop the model of sequential voting with various stages. Before the visit the model was solved only for two agents and fixed order: it can be found as a working paper here: [http://www.urv.cat/creip/media/upload/arxiu/wp/WP2014/DT.26-2014-1910\\_Bannikova.pdf](http://www.urv.cat/creip/media/upload/arxiu/wp/WP2014/DT.26-2014-1910_Bannikova.pdf). I planned to extend it to  $n$  agents and introduce random voting ordering. These extensions required specific computational approaches, and I would like to thank my host professor Attila Tasnádi for his help and his time. Thanks to this visit, I was able to solve the  $n$ -agents case and the random voting order, as the result, two papers are under preparation to submit. Besides, I tried to introduce different voting rules and bribing in the model and the results seems promising. Hope I will manage it.

During my visit I regularly participated at Game Theory Seminar series of the Department of Mathematics, and have presented current results in a talk entitled “Gathering support from rivals”. Local researchers gave me useful feedback and new ideas to think.

I had a chance to attend the local “Fair Division” course for exchange students. It allowed me to amplify my knowledge and made me think if I could apply it to my research.

We had useful and fruitful discussions with my host professor Attila Tasnádi. As the result the new joint paper is expected about the corruption inside of the parliament. We investigate whether there is a connection between the parliament structure (number of seats, number of parties, voting rule, threshold to enter, etc). We plan to show some evidence using the data from Transparency agency about corruption and data about the political institutions. And then we expect to confirm the hypothesis with the theoretical model. The joint work is in progress.

I am very grateful to the COST action for giving me such a great opportunity. Thanks to your support I was able to progress a lot in my work and start a new paper collaborating with host professor Attila Tasnádi.