COST Action: IC1205 on Computational Social Choice: STSM Report

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Purpose of the STSM:
We wanted to continue a joint work on special house allocation markets. We suppose that there are three types of agents in the market: singles, divorcing pairs and engaged pairs. Each single agent owns a house, but wants to move to a better one, divorced couples have one house, and want to move separatedly to two different houses, while engaged couples have two houses, and move to one house together. We explored two problems.
Is it possible that everyone moves to a different house? This can be solved in polynomial time by finding a perfect matching in a bipartite graph with vertices corresponding to agents and houses.
What is the maximum number of agents who can get a new house? We showed that this problem is NP complete. We are also looking for inapproximabilty results.
There are questions for future reserch, such that finding a Pareto optimal allocation, or the core of the game. We plan on writing a paper about it.

Other comments:
I have presented a seminar in Kosice, about one of my earlier results: Stability and lattice structure of the Hungarian college admissions. It was well received. I also took part in a research seminar with students where we talked about teacher/school allocations if the teachers have two or more subjects.