COST Action IC1205 on Computational Social Choice: STSM Report
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Purpose of the STSM:

Axiomatizing the proportional rule in financial networks

We consider a situation in which agents have mutual claims on each other, summarized in a liability matrix. Agents' assets might be insufficient to satisfy their liabilities leading to defaults. In case of default, bankruptcy rules are used to specify the way agents are going to be rationed. The proportional rule (when payment are proportional to assets) can be traced back to Aristotle. We are searching for natural properties axiomatizing the proportional rule.

Description of the work carried out:

We have defined six natural axioms characterizing the proportional rule in financial networks. That is we have shown that the proportional rule satisfies those axioms, the axioms imply the that the rule is the proportional rule and the axioms are independent. Meanwhile we have made interesting discoveries related to the constrained equal awards rule and to the constrained equal losses rule in financial networks.