

**AGCO Seminar**

**Speaker:** Ulrike Schmidt-Kraepelin, TU Eindhoven., Países Bajos

**Title:** Truthful Budget Aggregation: Beyond Moving-Phantom Mechanisms.

**Abstract:**

We study a budget-aggregation setting in which a number of voters report their ideal distribution of a budget over a set of alternatives, and a mechanism aggregates these reports into an allocation. Ideally, such mechanisms are truthful, i.e., voters should not be incentivized to misreport their preferences. For the case of two alternatives, the set of mechanisms that are truthful and additionally meet a range of basic desiderata (anonymity, neutrality, and continuity) exactly coincides with the so-called moving-phantom mechanisms, but whether this space is richer for more alternatives was repeatedly stated as an open question. We answer this question in the affirmative by presenting a class of truthful mechanisms that are not moving-phantoms but satisfy the three properties. Since moving-phantom mechanisms can only provide limited fairness guarantees (measured as the worst-case distance to a fair share solution), one motivation for broadening the class of truthful mechanisms is the hope for improved fairness guarantees. We dispel this hope by showing that lower bounds holding for the class of moving-phantom mechanisms extend to all truthful, anonymous, neutral, and continuous mechanisms.

This is joint work with Mark de Berg, Rupert Freeman, and Markus Utke.

**When:** April 2, 3:30 pm - 4:00 pm.

**Where:** Sala de Seminario John Von Neumann, 7th floor, CMM, Av. Beauchef 851, torre norte.

