1035-91-608   **Christian Klamler*** (`christian.klamler@uni-graz.at`), Institute of Public Economics, University of Graz, Universitaetsstr. 15/E4, 8010 Graz, Austria, and **Daniel Eckert**. *A geometric approach to judgement aggregation.* Preliminary report.

The problem of judgement aggregation (JA) consists in aggregating individual judgments on an agenda of logically interconnected propositions into a collective set of judgments on these propositions. This relatively new literature is centred on problems like the discursive dilemma which are structurally similar to paradoxes and problems in social choice theory. Saari (1995) has successfully introduced a geometric approach to the analysis of such paradoxes the extension of which to JA seems promising. A major difference of JA to social choice theory lies in the representation of the information involved. While binary relations over a set of alternatives are a natural representation of preferences, judgments are typically represented by sets of propositions or by vectors of their valuations, where the logical interconnections between these propositions determine the set of feasible valuations. E.g. the agenda $\{a, b, a \wedge b\}$ is associated the set of feasible valuations $\{(0,0,0), (1,0,0), (0,1,0), (1,1,1)\}$. In this paper we want to use Saari's tools to analyse results in JA. In particular using representation cubes and applying profile decompositions we will analyse various results and aspects from the literature on JA. (Received September 12, 2007)

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