RETHINKING THE NEUTRALITY AXIOM IN JUDGMENT AGGREGATION

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ABSTRACT
How can we aggregate the judgments of a group of agents in a fair way? One solution is suggested by the popular neutrality axiom in judgment aggregation: if two judgments enjoy the same support amongst the agents, either both or neither of them should be part of the collective decision. This is a reasonable requirement in many scenarios, but we argue that for scenarios in which agents are asked to judge very diverse kinds of propositions, the classical neutrality axiom is much too strong. We thus propose a family of weaker neutrality axioms, parametrised by binary relations between the propositions.

EXAMPLES

NUMBER OF MODELS

LOGICALLY EQUIVALENT FORMULAS

The premise-based rule is not neutral, but it is relationally neutral if we relate propositions that are logically independent from each other.

DESIGN: Karin Fischnaller