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Implementation in Undominated Strategies: Dictatorship and Compromise

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Abstract

In this paper we consider implementation of a social choice correspondence (SCC) in undominated strategies by a finite mechanism, and address an open question in the literature. An outcome is called a “compromise” if it is Pareto efficient but not most-preferred by any agent. We show that it is impossible to implement an efficient SCC that enforces only compromises at a preference profile when the SCC satisfies a condition called reverse strategy-resistance. To prove this result, we introduce a new monotonicity condition which is necessary for implementation. As a corollary, when the SCC satisfies anonymity and neutrality in addition, any implementable SCC is shown to be tops-inclusive.