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Title: Random Assignment: Redefining the Serial Rule

Abstract: We discuss recent results on axiomatic characterization of the well-known Serial rule in the random assignment problem, as well as new properties of this rule when agents' preferences are lexicographic.

We provide a new, welfarist, interpretation of the Serial rule, strikingly different from previous attempts to define or axiomatically characterize this rule. For each agent i we define $t_i(k)$ to be the total share of objects from her first k indifference classes this agent i gets. Serial assignment is shown to be the unique one which lexicographically maximizes the vector of all such shares ($t_i(k)$).

This result is very general; it applies to arbitrary, strict or non-strict, preferences, and/or to non-integer quantities of objects as well.

We also give alternative characterizations of Serial rules, based on recent results for lexicographic preference domain, but related to recent characterization results which use monotonicity-type axioms.

Keywords: Random assignment, Serial Rule, Lexicographic Maximum