The Lexicographic Serial Rule

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Abstract : We study the probabilistic allocation of finitely many indivisible objects to finitely many agents. Well known allocation rules for this problem include random priority, the market mechanism proposed by Hylland and Zeckhauser [1979], and the probabilistic serial rule of Bogomolnaia and Moulin [2001]. We propose a new allocation rule, which we call the lexicographic (serial) rule, that is tailored for situations in which each agent's primary concern is to maximize the probability of receiving her favourite object. Three axioms, lex efficiency, lex envy freeness and fairness, are proposed and fully characterize the lexicographic serial rule. We also discuss how our axioms and the lexicographic rule are related to other allocation rules, particularly the probabilistic serial rule.

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