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Summary: We consider graph-based hedonic games such as simple symmetric fractional hedonic games and social distance games, where a group of utility maximizing players have hedonic preferences over the players’ set, and wish to be partitioned into clusters so that they are grouped together with players they prefer. The players are nodes in a connected graph and their preferences are defined so that shorter graph distance implies higher preference. We are interested in Nash equilibria of such games, where no player has an incentive to unilaterally deviate to another cluster, and we focus on the notion of the price of stability. We present new and improved bounds on the price of stability for several graph classes, as well as for a slightly modified utility function.

MSC:
91A43 Games involving graphs
91A12 Cooperative games

Keywords:
fractional hedonic games; social distance games; equilibria; price of stability

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References:


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