Some Results on Von Neumann and Morgenstern’s Stable Set in Multidimensional Majority rule Games

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Abstract

In this work we explore some properties of von-Neumann-Morgenstern stable sets in the environment of multidimensional spatial voting situations. In our framework, the set of outcomes under consideration is some compact and convex subset of some finite dimensional Euclidean space and any majority coalition can enforce any outcome from another. Among the more significant results, we show that contrary to the well-known claim in Cox, 1987 (repeated in many subsequent works), a stable set in such an environment does not necessarily coincide with the core even when the core is non-empty. We also study when such a stable set may be finite.

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