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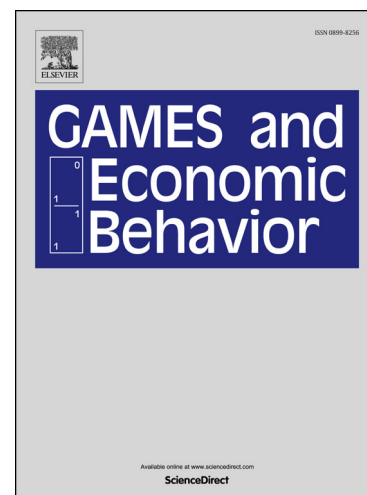
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Note on Unique Nash Equilibrium in Continuous Games

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Last Updated: May 9, 2018**Abstract**

This note studies whether any set of finitely supported mixed strategies can be represented as the unique Nash equilibrium of a game. This note shows that if strategy spaces are metric spaces containing infinitely many points, then any set of finitely supported mixed strategies can be represented as the unique Nash equilibrium to a separable game. If the strategy spaces are additionally subsets of Euclidean space with infinitely many cluster points, then any set of finitely supported mixed strategies can be represented as the unique Nash equilibrium to a polynomial game.

JEL Classification Numbers: C70; D70

Keywords: Continuous Games; Separable Games; Polynomial Games; Nash Equilibrium

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