Implementation in Undominated Strategies with Priors

Saptarshi Mukherjee[*]   Nozomu Muto[†]

Abstract

This paper introduces a notion of implementation of a social choice correspondence (SCC) in iteratively (weakly) undominated strategies by bounded and covered mechanism, with a prior over the agents' preference profiles in an incomplete information setting. We discusse a relation to implementation in undominated strategies. The mechanism designer's belief about agents' knowledge of rationality of the others discriminates these two notions. Although examples show that many mechanisms implement distinct SCCs in these two notions, we construct a mechanism which double-implements the SCC for all full-support priors whenever the SCC is implementable in unodimiated strategies, and satisfies a simple condition called *intersection*. In an important application we show that the Pareto correspondence is double-implementable.

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[*]Departament d'Economia i d'Història Econòmica, Universitat Autònoma de Barcelona, and MOVE, Edifici B, Campus UAB, 08193 Bellaterra, Barcelona, Spain. E-mail: saptarshi.mukherjee@uab.cat

[†]Department of Economics, Hitotsubashi University, 2-1 Naka, Kunitachi, Tokyo 186-8601, Japan. E-mail: nozomu.muto@gmail.com