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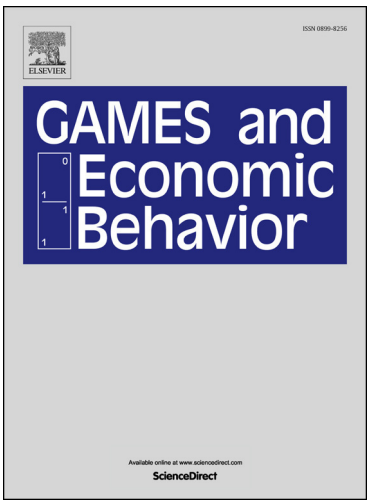

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Non-Revelation Mechanisms for Many-to-Many Matching: Equilibria versus Stability*

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Abstract

We study many-to-many matching markets in which agents from a set A are matched to agents from a disjoint set B through a two-stage non-revelation mechanism. In the first stage, A-agents, who are endowed with a quota that describes the maximal number of agents they can be matched to, simultaneously make proposals to the B-agents. In the second stage, B-agents sequentially, and respecting the quota, choose and match to available A-proposers.

We study the subgame perfect Nash equilibria of the induced game. We prove that stable matchings are equilibrium outcomes if all A-agents' preferences are substitutable. We also show that the implementation of the set of stable matchings is closely related to the quotas of the A-agents. In particular, implementation holds when A-agents' preferences are substitutable and their quotas are non-binding.

Keywords: implementation; matching, mechanisms, stability, substitutability

JEL–Numbers: C78, D78.

1 Introduction

We study many-to-many matching markets in which agents from a set A are matched to agents from a disjoint set B through a two-stage non-revelation mechanism. In the first stage, A-agents, who are endowed with a quota that describes the maximal number

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