

Title: Two-sided matching with objects

Aleksandrs Smilgins

In this paper we extend the classical two-sided matching problem by including a non-empty set of objects, such that a matching includes two agents from disjoint sets, denoted by men and women, and an object. The objects have no preferences, while the preference lists of men and women are captured by asking to (strictly) rank all the possible allocations that include themselves. We extend the definition of a blocking pair to capture the setup of the model and show that in this setup a stable matching always exists. We introduce a mechanism that includes a lottery over the objects, and which in this setup gives stable matchings and satisfies additional properties.