

A one-shot deviation principle for stability in matching problems

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April 21, 2013

Abstract This paper considers marriage problems, roommate problems with nonempty core, and college admissions problems with responsive preferences. Jackson and Watts (2002) and Klaus et al. (2010) applied stochastic stability analysis à la Kandori et al. (1993) to those problems and showed that all stable matchings are stochastically stable. We revisited them with stochastic stability analysis with a class of noisy best responses including logit and probit choice rules. All stochastically stable matchings are shown to be contained in the set of matchings which are most robust to one-shot deviation, i.e. matchings having the lowest probability of the most likely deviation.

Keywords: Learning; stochastic stability; matching; marriage; college admissions.

JEL Classification Numbers: C71, C72, C73, C78, D71.

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