

Abstract Submitted
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A network approach in analysis of the matching hypothesis¹ TAO JIA, ROBERT SPIVEY, GYORGY KORNISS, BOLESŁAW SZYMANSKI, Rensselaer Polytechnic Institute — The matching hypothesis in social psychology claimed that people are more likely to form a committed relationship with someone who is equally attractive. This phenomenon can be well interpreted by the principle of homophily that people are apt to get in touch with others similar to them. Yet, social experiments indicate that people in general tend to prefer more attractive individuals regardless of their own attractiveness. Here study the stochastic matching process for different underlying networks and different attractiveness distributions. We showed that the correlation of attractiveness within couples could purely due to the limited number of acquaintance each person has and such correlation decreases as the network becomes more sparse. We also analyzed the effect of the degree distribution and the attractiveness on the number of individuals that can not find their partners.

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