Abstract Submitted
for the MAR08 Meeting of
The American Physical Society

Some aspects on human preference in communication and friendship DIEGO RYBSKI, HERNÁN D. ROZENFELD, Levich Institute and Physics Department, City College of New York, New York, NY 10031, USA, FREDRIK LILJEROS, Department of Sociology, Stockholm University, S-106 91 Stockholm, Sweden, SHLOMO HAVLIN, Minerva Center and Department of Physics, Bar-Ilan University, 52900 Ramat-Gan, Israel, HERNÁN A. MAKSE, Levich Institute and Physics Department, City College of New York, New York, NY 10031, USA —
The objects of our investigation are social networks consisting of individual actants as nodes and their relations as links. Recently, on-line communities have gained immense popularity as indicated by millions of members participating in these platforms. Fortunately, the information given by member activity provides an ideal environment to study structural preferences of social behavior. In particular, we address the questions of how network topology benefits the establishment of new relations between the actants. Among others, we find that actants tend to get connected at a distance of 2. Further analysis indicates that the more common neighbors two actants have, the more likely they will be in relation with each other. We attribute this behavior to some kind of social pressure imposed by the neighborhood biasing the actants preferences.

Diego Rybski
Levich Institute and Physics Dept., City College of New York

Date submitted: 27 Dec 2007 Electronic form version 1.4