Abstract Submitted
for the MAR13 Meeting of
The American Physical Society

How does the host population's network structure affect the estimation accuracy of epidemic parameters? KENTA YASHIMA, KANA ITO, KAZUYUKI NAKAMURA, Meiji University — When an Infectious disease where to prevail throughout the population, epidemic parameters such as the basic reproduction ratio, initial point of infection etc. are estimated from the time series data of infected population. However, it is unclear how does the structure of host population affects this estimation accuracy. In other words, what kind of city is difficult to estimate its epidemic parameters? To answer this question, epidemic data are simulated by constructing a commuting network with different network structure and running the infection process over this network. From the given time series data for each network structure, we would like to analyzed estimation accuracy of epidemic parameters.

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Date submitted: 21 Dec 2012 Electronic form version 1.4