Abstract Submitted
for the MAR12 Meeting of
The American Physical Society

Vulnerability and Vaccination Strategies on realistic complex network THIERRY PLATINI, Virginia Bioinformatics Institute, ANDREA APOLLONI, Laboratoire de Physique ENS-Lyon — The general understanding of non-equilibrium stochastic processes evolving on complex networks become an important challenge. In the framework of epidemiology, one of the key challenges is the identification and the understanding of the role of critical and vulnerable nodes in the diffusion process. Considering the SIER model evolving on a large realistic complex networks, we present a study of the vulnerability for different viral strength. Our result are used to evaluate the possible vaccination strategies.

Andrea Apolloni
Laboratoire de Physique ENS-Lyon

Date submitted: 29 Nov 2011 Electronic form version 1.4