

Spreading Phenomena

Literature

Forecast and control of epidemics in a globalized world

L.Hufnagel, D.Brockmann and T.Geisel
Science (2004)

The Hidden Geometry of Complex, Network-Driven Contagion Phenomena

Dirk Brockmann and Dirk Helbing
Science (2013)

Infection dynamics on scale-free networks

Robert May and Alun Lloyd
Physics Review E (2001)

Network - An Introduction

M.E.J. Newman
Oxford University Press, 2010, Oxford

Please also find additional literature.

The following concepts should be explained:

- Infection threshold
- Stochastic infection dynamics
- SI/SIR Model, infection rate, fraction ever infected
- Effective distance
- Gillespie algorithm