PIPGES · WEBINARS

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RESULTS ON THE CONTACT PROCESS WITH DYNAMIC EDGES OR UNDER RENEWALS

The contact process is a relatively simple model to represent the spread of an infection in a population. Individuals can be either healthy or infected and the process evolves in time, allowing for infected individuals to become healthy and for healthy individuals to be infected by some of their infected neighbors. The process can be visualized by a graphical representation that depicts the (random) collection of cure times and transmission times. I will present two variants of the contact process that are built by considering different distributions for the cure and transmission marks in this graphical representation: Contact Process on Dynamic Edges introduced by Linker and Remenik and a generalization of the Renewal Contact Process introduced by Fontes, Marchetti, Mountford and Vares. In both models we will see ideas of how one can verify if there is a positive probability that the infection survives forever or not, depending on the model's parameters.

The video call link will be available at:

https://tiny.one/ungaretti-d

SPEAKER
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Interinstitutional Graduate Program in Statistics (PIPGES) of Federal University of São Carlos with University of São Paulo promotes seminars groups (temporarily webinars, due to pandemic issues) of researches involving Probability, Statistics, Machine Learning etc. Our interest, among other things, is to stimulate the sharing of knowledge, as well as the connection between members of the program and researchers in other institutions.

Organizer
Michel H. Montoril, Department of Statistics,
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BIO
Graduação e mestrado na UFMG, doutorado pelo IMPA, pós-doc na Unicamp, UFMG e USP, atualmente professor na UFRJ. Atualmente trabalha com modelos de percolação, passeios aleatórios e processos de contato.

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