



Conferencia: Semi-Markov Random Evolutions with Applications in Discrete-time

21/10/2025

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Title:

Semi-Markov Random Evolutions with Applications in Discrete-time

Abstract:

We present a study of semi-Markov random evolutions in discrete-timewhere we stress asymptotic properties, namely, averaging and diffusion approximation by martingale weak convergence method. We start from a short presentation of semi-Markov chains, the Markov renewal theory and then the definition of semi-Markov random evolution and limit theorems followed by applications in concrete families of stochastics systems. Applications concern averaging and diffusion approximations for discrete-time dynamical systems, as additive functionals, geometric Markov renewal processes. We also present some estimation problem of stationary probability of semi-Markov chain. Many other applications concerning real systems can be faced via random evolutions.



Date / time / place: 30-Oct-2025 / 13:00 / Aula M-1