

Oberseminar Mathematische Stochastik

Mittwoch, 11. November 2015, 17:00 Uhr, M 6

Peter Mörters, Bath

The contact process on evolving scale-free networks

Abstract:

We study the contact process on a class of scale-free networks, where each node updates its connections at independent random times. We show that there is a phase transition between a metastable phase, where for all infection rates the infection survives for a long time, and a stable phase, where for sufficiently small infection rates extinction occurs quickly. The transition occurs when the power law exponent crosses the value four. This behaviour is different from the behaviour of both static and mean field models. The talk is based on joint work with Emmanuel Jacob (Lyon).