

Markovian Random Network Processes

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Abstract: Recently there has been an increasing interest on the complex random networks with power law degree distributions and other properties. Most of the empirical and theoretical models of random networks studied up to date can be viewed as Markov processes with state spaces consisting of graphs. In this talk we shall present some of our recent research results along this direction. The topics will include: stationary states of large scale random networks, mathematical problems arising from Web search engines, epidemiological processes on networks.