

Contact Network Dynamics for Ebola Spread

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The talk will discuss some old and new results related to the analysis of stochastic SIR-type epidemics on a configuration model random graph having a fixed degree distribution p_k . In particular, it will describe the relevant large graph limit result which yields the law of large numbers for the edge-based process. Applications to building "network-free" SIR stochastic hybrid model relevant to recent Ebola and Zika epidemics will be presented.