概率论系列报告

报告题目(Title): Stability of regime-switching processes under feedback controls and perturbations

报告人(Speaker): 邵井海 (天津大学) 时间(Time): 3月25日(周一)下午 3:00-4:00

地点(Venue): 北京大学理科一号楼 1513

摘要(Abstract): In this talk I want to introduce some results on the almost sure stability of regime-switching systems based on discrete-time observations of both continuous and discrete components. To realize this development, we establish an estimation of the exponential functional of Markov chains based on the spectral theory of linear operator. Also, through constructing suitable coupling process based on Skorokhod's representation of jumping processes, we realize the control from up and below of the evolution of state-dependent switching process by two state-independent Markov chains. At last, the stability of regime-switching processes under the perturbation of the transition rate matrices is investigated.

欢迎奏加