

Specialized Lectures: Stochastic Processes for Cell Systems and Cancer Dynamics

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I plan to lecture on stochastic processes for cell systems and cancer dynamics. I will focus on counting processes, and discuss basic birth-death processes as well as branching processes. I hope to discuss some basics of inference and different data settings that arise. I imagine one or two lectures would be ideal, and would be happy to give a tutorial or breakout session though I don't have a clear idea of what each activity looks like. References include: Branching Process Models of Cancer [Durrett], Branching Processes in Biology [Kimmel and Axelrod], Stochastic Population Processes [Renshaw], Applied Probability [Lange, Chapters 6-9]