Path-dependence and Stochastic Processes

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Mathematics and Computer Science (MCS) Building, Room 149
111 Cummington Street, Boston

Tea and Cookies at 3:30pm in MCS 153

Abstract: I will outline a general approach to the analysis of functionals of stochastic processes, based on the notion of path-dependence. The results I will discuss involve some new findings in the theory of Hoeffding decompositions for sequences of exchangeable observations, as well as some alternate ”chaotic” decompositions of functionals of Brownian motion. Strong motivations for this analysis come from mathematical finance, and in particular from the obtaining of error bounds in the hedging of path-dependent options. Some open problems will be also discussed.

For directions and maps, please see http://math.bu.edu/research/statistics/statseminar.html.