



BOSTON UNIVERSITY STATISTICS
AND PROBABILITY SEMINAR SERIES

Path-dependence and Stochastic Processes

Giovanni Peccati

Laboratoire de Statistique Théorique et Appliquée (LSTA)

University of Paris VI

Thursday, October 25, 2007, 4:00-5:00pm

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 obtention 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>.