## COLLOQUIUM

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## Central Limit Theorems for Functionals of Gaussian Processes and Applications

Tuesday, April 20, 2010 A405 Wells Hall 10:20 a.m. - 11:10 a.m. Refreshments: 10:00 a.m.

## Abstract

Consider a sequence of centered functionals of an underlying Gaussian process. Sufficient conditions for the convergence of this sequence to a normal distribution will be presented, based on Weiner chaos expansions and Malliavin Calculus. We will also discuss the connection of this approach with Stein method and we will obtain results on the rate of convergence of the Gaussian approximations. Some applications to functionals of the fractional Brownian motion will be developed.

To request an interpreter or other accomodations for people with disabilities, please call the Department of Statistics and Probability at 517-355-9589.