



The University of Chicago
Department of Statistics

Seminars for Fourth Year Ph.D. Students

PHILLIP LYNCH
Department of Statistics
The University of Chicago

Locally Mean Reverting Processes

MONDAY, December 8, 2008 at 1:30 PM
110 Eckhart Hall, 5734 S. University Avenue

ABSTRACT

We discuss a general class of stochastic processes: those which revert to compound Poisson processes. We discuss why such processes could be useful in finance, and present results concerning a nonlinear filter which comes up naturally in this context. We present an efficient Bayesian algorithm for approximating filtering distributions, and apply this algorithm to volatility prediction in finance.