$S_t \circ c(h)(a_s)_{ti}c(s) + \mathfrak{S}_e m^i n(a_r)$ Department of Mathematics, University of Utah



Asymptotic analysis of a Cox-Ingersoll-Ross type diffusion

Robert Smits New Mexico State University



Time and Place: Friday October 31, 2008; 3:00–4:00 p.m.; LCB 219

Bessel processes are related to financial mathematics via geometric Brownian motion and the Cox-Ingersoll-Ross process. For these processes one has a drift term that leads either to exponential return times or power law return times. We will discuss a power of the Bessel drift that leads to subexponential return times. Connections to conditioned Brownian motion on simply connected geometries will also be discussed.