

Some Properties of Fractional *Ornstein-Uhlenbeck Process*

S. C. Lim

*Faculty of Engineering,
Multimedia University,
Cyberjaya 63100, Selangor DE,
Malaysia.
E-mail:sclim@mmu.edu.my*

Abstract

We study the solution of fractional Langevin equation at both zero and positive temperature. The partition function and other thermodynamic properties associated with the solution (or the fractional Ornstein-Uhlenbeck process) can be obtained by using the generalized zeta function and the heat kernel techniques.