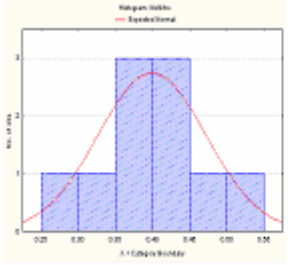
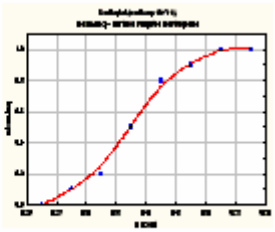


Statistics

Research (StaR) Colloquium



Seminar

Dept of Mathematics and Statistics
King Fahd University of Petroleum and Minerals

Presenter	**Dr. Boubaker Smii** **Dept of Mathematics and Statistics** **KFUPM**
Title	**How to determine the Law of the noise driving a Stochastic Partial Differential Equation (SPDE)?**
Topic & (Level)	Stochastic Partial Differential Equations **(Methodological with Finance Applications)**
Audience	All KFUPM community are cordially Invited
Date	Sunday, Dec 20 2009
Time	12:40 PM – 1:30 PM
Location	Building 5, Smart Classroom # 201

Abstract

In this talk I consider a stochastic partial differential equation (SPDE) driven by space-time Lévy noise. The correlation functions of the solution are represented by a sum over a certain class of graphs, called Parisi-Wu graphs. In all these solutions the cumulants of the single site distribution of the noise enter as multiplicative constants. By comparison to empirical correlation function, due to M. Von. Laue (Noble Prize 1914), one determines the law of the noise.

Some Applications to Mathematical Finance will be discussed as well in the talk.

Tea and Coffee will be served