Research (StaR) Colloquium
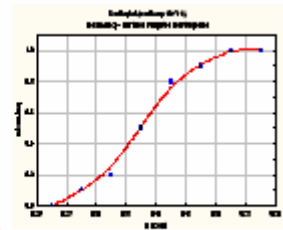
Seminar

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

Presenter	**Dr. Raja Mohammad Latif** **Dept of Mathematics and Statistics** **KFUPM**
Title	**Topological Characterizations of Probabilistic Metric Spaces**
Topic & (Level)	Probability **(Theoretical)**
Audience	All KFUPM community are cordially Invited
Date	Sunday, June 14, 2009
Time	1:00 PM – 1:50 PM
Location	Building 5, Smart Classroom # 203

Abstract

The notion of a probabilistic metric space is introduced by Menger [1942]. A probabilistic metric space is a generalization of metric spaces where the distance is no longer defined on positive real numbers, but on distribution functions. It is well known that the theory of probabilistic metric space is a new frontier branch between probability theory and functional analysis and has an important background, which contains the common metric space as a special case. One can study the completeness theory in the probabilistic metric space. This study has important applications, for example, in fixed point theory and etc. In this talk by assuming (X, d) to be a metric space, the probabilistic metric induced by d is defined and some of its properties are studied. Then we also present the Bolzano–Weierstrass property in the context of probabilistic metric.

References
[1]. K. Menger, Statistical Metrics, Proc. Nat. Acad. Sci. U.S.A. 28 (1942), 535 – 537.
[2]. V. Radu, Lectures on Probabilistic Analysis, Surveys, Lecture Notes and Monographs, Series on Probability, Statistics and Applied Mathematics, vol. 2, Universitatea din of Timisoara, 1994.
[3]. B. Schweizer and A. Sklar, Probabilistic Metric Spaces, North-Holland Series in Probability and Applied Mathematics, North-Holland Publishing, New York, 1983.

Tea and Coffee will be served