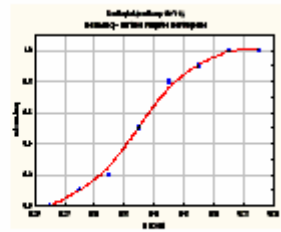


Statistics



Research (StaR) Colloquium

Seminar

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

<i>Presenter</i>	<p>Dr. Anwar H. Joarder Mathematics and Statistics Dept KFUPM</p>
<i>Title</i>	<p>A Bivariate Chi-Square Distribution and Some of its Properties</p>
<i>Topic & (Level)</i>	<p>Mathematical Statistics (Statistical Distribution, Methodology)</p>
<i>Audience</i>	<p>All KFUPM community are cordially Invited</p>
<i>Date</i>	<p>Tuesday, Jan 08, 2008</p>
<i>Time</i>	<p>1:30 PM - 2:30 PM</p>
<i>Location</i>	<p>Building 5, Smart Classroom # 203</p>

Abstract

There are a number of bivariate chi-square distributions in the literature. Some properties of the natural one that follows from bivariate Wishart distribution have been studied in the literature but without the specific form of the joint density function. In this paper, we derive distributions of the sum, product, ratio and many other interesting quantities of two correlated chi-squares variables based explicitly on the joint density function. Product moments are also presented. When the variables are uncorrelated, results match with the independent case available in the literature. An application of the ratio of two correlated chi-squares is referred.

Tea and Coffee will be served