





Research (StaR) Colloquium

Seminar

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

Presenter	Dr. Mohammad.H. Omar Mathematics and Statistics Dept KFUPM
Title	Some Properties of the Bivariate Dirichlet Distribution
Topic & (Level) Audience	Mathematical Statistics (Statistical Distribution, Methodology) All KFUPM community are cordially Invited
Date	Sunday, Mar 16, 2008
Time	1:00 PM - 1:50 PM
Location	Building 5, Smart Classroom # 203

Abstract

The Dirichlet distribution has found wide ranging applications in areas such as modeling activity times in a PERT (Program Evaluation and Review Technique) network, modeling consumer buying behavior, slippage tests for the χ^2 distribution, and approximating a multinomial distribution. Recently, in educational and psychological testing, the Dirichlet has been used as to model polychotomously graded items. Thus, the properties of the Dirichlet, in particular the Bivariate Dirichlet, are important.

In this talk, I will present raw and corrected product moments, calculated for the bivariate Dirichlet distribution. Then, these are used to derive the second and third order standardized moments or Mahalanobis moments of the distribution. Some other characteristics of the distribution such as the product moment correlation coefficient, Shannon Entropy and Local dependence function are also studied.

Tea and Coffee will be served