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DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE  
THE UNIVERSITY OF HONG KONG

Seminar

**Dr. TIAN Guo-Liang**

Department of Statistics and Actuarial Science  
The University of Hong Kong  
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will give a talk

entitled

**GROUPED DIRICHLET DISTRIBUTION (GDD)  
AND NESTED DIRICHLET DISTRIBUTION (NDD):  
NEW TOOLS FOR INCOMPLETE CATEGORICAL  
DATA ANALYSIS**

Abstract

Motivated by the likelihood functions of incomplete categorical data in different background, I have proposed and developed in a series of papers with collaborators two new families of distributions as new tools. They are Grouped Dirichlet Distribution and Nested Dirichlet Distribution, both encompassing the classical Dirichlet distribution as a special case. In this talk, we shall separately review the properties of these two families of distributions in their own rights and demonstrate with real and simulated data how these two expanded families of distributions emerge as new tools for both maximum likelihood and Bayesian inference of incomplete categorical data. The advantages of using these new tools will be discussed in detail.

on

**Thursday, April 2, 2009**

**10:30 a.m. – 11:30 a.m.**

at

**Room 524, Meng Wah Complex  
(behind the Chong Yuet Ming Amenities Centre)**

**Visitors Please Note that the University has limited parking space. If you are driving please call the Department at 2859 2466 for parking arrangement.**

All interested are welcome