THE CHINESE UNIVERSITY OF HONG KONG

Department of Statistics

will present a seminar entitled

Asymptotic Behavior of the Poisson-Dirichlet Distribution

by

Professor Shui Feng
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on

Tuesday, 13 July 2010
2:00pm – 3:00pm

in

William M W Mong Engineering Building 405
The Chinese University of Hong Kong

Abstract:

The Poisson-Dirichlet distribution is a one parameter probability on the infinite dimensional ordered simplex. It was introduced by Kingman over thirty years ago and has found applications in a wide range of areas including Bayesian statistics, biology, ecology, economics, number theory, physics and population genetics. In the context of population genetics, the distribution describes the equilibrium behavior of a population evolving under the influence of parent independent mutation and genetic drift with the parameter corresponding to the scaled mutation rate of the population. In this talk we will discuss asymptotic results for the distribution when the mutation rate tends to infinity or zero, including the law of large numbers, fluctuation theorems, moderate deviations, and large deviations.

All are Welcome