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# Joint Statistics Seminar

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*The Hong Kong University of Science and Technology*

## Small Value Phenomenons in Probability and Statistics

by

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University of Delaware

**Date: March 2, 2007 (Friday)**

**Time: 4:00 p.m. - 5:00 p.m.**

**Venue: Room 3401 (Lift 17 & 18)**

### Abstract

Two fundamental problems in probability theory and statistical analysis are typical behaviors such as expectations, laws of large numbers, central limit theorems and approximated sampling distributions, and rare events such as large deviations, significant level and power. Small value probability studies the probability of the rare events that positive random variables take smaller values. The associated typical behavior deals with the expectation of the minimum of a family of positive random variables. In the literature, small value probabilities of various types are studied and applied to many problems of interest under different names such as small deviation, lower tail behaviors, boundary crossing probabilities, asymptotic evaluation of Laplace transform for large time, stopping rules in sequential analysis, etc. We will provide an overview on current and emerging opportunities in the area.

❖ **All interested are welcome!** ❖

*For details, please contact ISMT Department.*