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# Hong Kong University of Science and Technology

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## *Joint Statistics Seminar (1)*

### **Coverage of Wireless Networks and Stein-Chen Methods**

by

**Professor Ma Zhiming**

Institute of Applied Mathematics  
AMSS, CAS

**Date: December 8, 2006 (Friday)**

**Time: 3:00 p.m. - 4:00 p.m.**

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

#### **Abstract**

Motivated by the study of large scale wireless sensor networks, we discussed the asymptotic probability that a pre-assigned region is covered by randomly deployed disks based on Poisson point process. We employed first some heuristic idea of Aldous to obtain a neat expression of the coverage probability. We then employed Stein-Chen methods to derive rigorously necessary and sufficient conditions for the pre-assigned region to be asymptotically covered with probability 1 or 0 respectively. Meanwile we found that our previous heuristic result is up to now can not be completely proved in rigorous way, which leads to a further study of Stein-Chen methods.

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## *Joint Statistics Seminar (2)*

### **Accelerated Life Models for Clinical Trials in Oncology**

by

**Professor Mikhail Nikouline**

University of Victor Segalen Bordeaux II  
France

**Date: December 8, 2006 (Friday)**

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

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

*All interested are welcome!*

*For details, please contact ISMT Department.*