

THE CHINESE UNIVERSITY OF HONG KONG

Department of Statistics

will present a seminar entitled

Coverage of wireless networks and Stein-Chen methods

by

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on

Tuesday, 5 December 2006
2:00 pm – 3:00 pm

in

Lady Shaw Building C4
The Chinese University of Hong Kong

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. By applying the heuristic idea of Aldous, we obtained a neat expression of the coverage probability. We then employed Stein-Chen methods to derive rigorously the necessary and sufficient conditions for the pre-assigned region to be asymptotically covered with probability 1 or 0, respectively. Meanwhile, we found that part of our previous heuristic result cannot be proved rigorously and it requires a further study of Stein-Chen methods.

All are Welcome