

Speaker:
Dr Qiyang Wang
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Date: Tuesday, Tuesday June, 12 2007, 2-3pm
Venue: E4A 523 (level 5 seminar room)

Title: Self-normalized limit theorems with applications in Statistics

Abstract: Sample mean plays a very important role in the development of probability and statistics. The classical limit theorems in connection with sample mean, such as the central limit theorems, Berry-Esseen bound, Edgeworth expansion as well as the large deviations, are celebrated results in probability theory and have many applications in statistics and other fields. However, many classical results are not so natural from a statistical point of view because the parameters involved in these classical limit theorems are usually unknown, one has to estimate them first and then apply the estimators in the classical limit theorems. Limit theorems for self-normalized sums put a totally new countenance upon the classical limit theorems. The results in this area not only are more natural from a statistical point of view because they waive the unknown parameters, but also they are valid without moment conditions or under little moment conditions, and they are much neater. In this talk, speaker will review some of self-normalized limit theorems and present his current works with several collaborators.