

D50 Prelim Syllabus-revised February 1993

The π - λ theorem and applications
Weak law of large numbers
Borel-Cantelli lemmas
Three series theorem
Strong law of large numbers
Law of the iterated logarithm
Weak convergence of probability measures
Characteristic functions
Central Limit Theorems
Zero-one laws
Recurrence of random walk
Conditional expectation
Martingale maximal and upcrossing inequalities
Martingale convergence theorem
Ergodicity and ergodic transformations
Birkhoff (additive) ergodic theorem
Kingman (multiplicative) ergodic theorem
Recurrence of Markov chains