概率论系列报告

报告题目(Title): Multivariate Extension of the Ballot Theorem and Its Applications in Multitype branching forests

报告人(Speaker): 刘荣丽 副教授 南京大学

时间(Time): 3 月 7 日(周一)下午 3：00-4：00

地点(Venue)：北京大学理科一号楼 1303

摘要(Abstract): By extending the breadth first search algorithm to any d-type critical or subcritical irreducible branching forest, we show that such forests may be encoded through d independent, integer valued, d-dimensional random walks. An application of this coding together with a multivariate extension of the Ballot Theorem which is proved here, allow us to give an explicit form of the law of the total progeny, jointly with the number of subtrees of each type, in terms of the offspring distribution of the branching process. We then apply these results to some enumeration formulas of multitype forests with given degrees and to a new proof of the Lagrange-Good inversion Theorem. This talk is based on a joint work with Professor Loic Chaumont.

欢迎参加