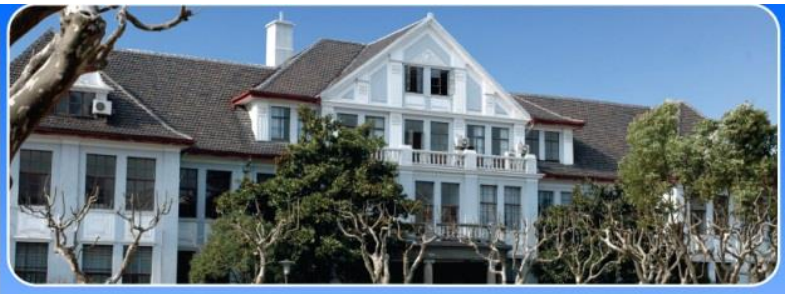


复旦大学数学科学学院
数学综合报告会

报告题目：On normal approximations of linear eigenvalue statistics

报告人：苏中根 教授（浙江大学）

时间：2020-11-09 星期一 13:45--14:45

地点：腾讯会议 ID: 189 482 260

报告摘要：

Normal approximation is arguably recognized as one of the most widely used tools in theoretical probability and applied statistics. A lot of powerful methods and tricks have been successfully developed in establishing normal approximations for various statistics since the classic de Moivre and Laplace central limit theorem was proved in the early 19th century. In this talk I shall briey review some recent advances on normal approximations for linear eigenvalue statistics in random matrix theory. In contrast to the classic central limit theorems for sums of i.i.d.r.v.'s, one usually requires the test function f satisfies a certain strong regularity (smoothness) condition in the study of linear eigenvalue statistics, say $\sum_{i=1}^n f(\lambda_i)$, where the λ_i are eigenvalues of a random matrix. What test function is good seems to depend heavily on the tricks used in the argument.

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