## 概率论系列报告

报告题目(Title): Levy-Khintchine Random Matrices

报告人(Speaker): Paul Jung (Korea Advanced Institute of Science and Technology)

时间(Time): 5月13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): We study a class of Hermitian random matrices which includes Wigner matrices, heavy-tailed matrices, and sparse random matrices such as adjacency matrices of Erdos-Renyi graphs with p=1/N. The entries are i.i.d. (up to symmetry) and their distribution may depend on N; however, the sums of rows should converge in distribution to an infinitely divisible law. The LSD exists, via local weak convergence (Benjamini-Schramm topology) of associated rooted graphs, and it corresponds to the spectral measure associated to the root of a graph formed by connecting infinitely many Aldous PWITs using a backbone structure of special edges. One example covered are matrices with i.i.d. entries having infinite second moments, but normalized to be in the Gaussian domain of attraction. In this case, the LSD is a semi-circle law

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