

Random Matrices, Intrinsic Freeness, and Sharp Non-Asymptotic Inequalities

Afonso Bandeira

ETH Zurich

Random matrix theory has played a major role in several areas of pure and applied mathematics, as well as statistics, physics, and computer science. This lecture aims to describe the intrinsic freeness phenomenon and how it provides new easy-to-use sharp non-asymptotic bounds on the spectrum of general random matrices