[PHASE TRANSITION IN SOME RANDOM MATRIX MODELS]

After a quick introduction to some of the ideas of random matrix theory, I shall focus on current efforts to prove the existence of phase transition in some random matrix models suggested by noncommutative geometry. No prior knowledge of RMT or NCG will be assumed in my talk. The talks is based on my recent papers

arXiv:2006.02891: Phase transitions in random noncommutative geometries,

arXiv:1906.09362: Random finite noncommutative geometries and topological recursion.