Continuum limits of random matrices

Balint Virag (University of Toronto)

The point process limits of random eigenvalues for beta-ensembles can be understood by taking continuum limits of the random matrix. In the bulk, the limit is the sine point process. It is shown to be a simple functional of hyperbolic Brownian motion. On the edge, the Tracy–Widom limits are given by the eigenvalues of the Airy differential operator plus white noise.