

Boulder Probability Seminar
Thursday, April 19th 2-3pm, Math 350

Spiking the random matrix hard edge

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Abstract

In 2005 Baik, Ben Arous, and Peché identified an interesting phase transition for the distribution function of the largest eigenvalue of a Hermitian Gaussian matrix subject to a low rank perturbation. Later (2011+) Bloemendal and Virag extended this picture to the general beta ensembles of random matrix theory. We describe what happens to the perturbed smallest eigenvalues (in a sample covariance set-up), and how it connects back to the known results at the top of the spectrum.