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Rutgers University
Hill Center - Room 705

Universality of the second mixed moment of the characteristic polynomials of the 1D Gaussian band matrices

Tatyana Shcherbina, Institute for Advanced Study
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Abstract

We consider the asymptotic behavior of the second mixed moment of the characteristic polynomials of the 1D Gaussian band matrices. Assuming that the width of the band grows faster than $\sqrt{N}$, where N is a matrix size, we show that this asymptotic behavior in the bulk of the spectrum coincides with those for the Gaussian Unitary Ensemble.