

Distribution of eigenvalues of random normal matrices near the edge of the spectrum

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Abstract

Microscopic properties of eigenvalues of random normal matrices change drastically in a narrow belt around the edge of the spectrum. I present an elementary method to prove Borodin and Sinclair's theorem on the scaling limit of correlation kernels for the soft-edge Ginibre ensemble. This method gives new result for the hard-edge Ginibre ensemble. After a discussion of the general properties of this scaling limit, I state a universality conjecture and provide arguments to support it. This is a joint work with Y. Ameur and N. Makarov.