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Edge scaling limits for non-Hermitian random matrices

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Abstract

We discuss edge scaling limits for the eigenvalue point process at the rightmost edge of the spectrum in the ellipse ensemble, which is a family of models interpolating between the Ginibre ensemble and the GUE. In particular, there is a non-trivial transitional regime between Poisson and Airy point process statistics, where a new family of two-dimensional point processes arises in the limit.