

# Applications of homogenization theory of Dyson Brownian motion

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Dyson Brownian motion (DBM) has emerged as a useful tool to study the local statistics of general random matrix ensembles. A recently developed homogenization theory allows for the comparison of the eigenvalues undergoing the DBM dynamics to a reference Gaussian ensemble. We review this theory as well as its recent applications to the universality of the maximal gap between consecutive eigenvalues as well as the central limit theorem for the eigenvalue counting function.

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