

# Products of random matrices and Meijer G-functions

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Special functions play a major role in the theory of random matrices. Classical special functions such as Airy and Bessel functions describe possible limiting behavior of eigenvalues of random matrices near soft and hard edges. Nonclassical special functions associated with Painlevé equations appear for fluctuations and critical phenomena.

In more recent work, Meijer G-functions appear naturally in the description of eigenvalue and singular value distributions of products of random matrices. I will present an overview of these developments.