Universality in the products of Ginibre random matrices

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It has been shown by Akemann, Ipsen and Kieburg that the squared singular values of products of M rectangular random matrices with independent complex Gaussian entries are distributed according to a determinantal point process with a correlation kernel that admits a representation in terms of the Meijer G-functions. It comes out that the limiting kernels at the origin (hard edge) represent a new universality class in random matrix theory, which generalize the classical Bessel kernels. On the other hand, we still have universal sine kernel in the bulk and Airy kernel at the soft edge for the scaling limits of the correlation kernel, which are typical for unitary random matrix ensembles. The talk is based on joint work with Arno Kuijlaars, Dang-Zheng Liu and Dong Wang.