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Title: Multicritical Schur measures

Schur measures are random integer partitions, that map to determinantal point processes. We explain how to construct such measures whose edge behavior (asymptotic distribution of the largest parts) is governed by a higher-order analogue of the Airy ensemble/Tracy-Widom GUE distribution. This "multicritical" analogue was previously encountered in models of fermions in non-harmonic traps, considered by Le Doussal, Majumdar and Schehr. These authors noted a coincidental connection with unitary random matrix models, which our construction explains via an exact mapping. This part is based on joint work with Dan Betea and Harriet Walsh.

If time allows, I will hint at a possible generalization that would correspond to a unitary analogue of the Ambjørn-Budd-Makeenko hermitian one-matrix model. This is work in progress.