An approach to universality using Weyl m-functions

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I will present new results on scaled limits of polynomial reproducing kernels for probability measures on the real line and unit circle. These limits are known as universality limits and we will focus on the case when one obtains the sine kernel in the limit. Our results generalize much of the previous literature and show that universality at a point is a local property of the measure. Our approach uses a matrix version of the Christoffel-Darboux kernel.

Joint work with Benjamin Eichinger (Vienna University of Technology) and Milivoje Lukic (Rice University).