

CHRISTOFFEL DEFORMATIONS OF DISCRETE ENSEMBLES

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1. ABSTRACT

In this talk, I will present Christoffel deformations of some discrete orthogonal polynomial ensembles and their scaling limits. Discrete orthogonal polynomial ensembles are probability measures on N -points configurations on a lattice, determined by a discrete weight. Multiplying the weight by a positive polynomial leads to the so-called Christoffel deformation of the system. Starting with the Charlier ensemble, I obtain a deformation of the discrete Bessel point process by a scaling limit procedure. The deformations of the Meixner ensemble connects with deformations of the z -measures on partitions, the latter leading to deformations of the process with the Gamma kernel introduced by Borodin and Olshanski.

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