The Fine Structure of Zeros of Orthogonal Polynomials

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Abstract

I'll discuss the zeros of orthogonal polynomials on the real line (OPRL) and unit circle (OPUC) and also of para-orthogonal polynomials on the unit circle. A main focus will be on clock behavior—Equal spacing of zeros on a scale defined by the density of states—A behavior opposite to Molchanov's celebrated Poisson behavior in the random case.