Asymptotic zeros' distribution of orthogonal polynomials with unbounded recurrence coefficients

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We study spectrum of finite truncations of unbounded Jacobi matrices with periodically modulated entries. In particular, we show that under some hypotheses a sequence of properly normalized eigenvalue counting measures converge vaguely to an explicit infinite Radon measure. Finally, we derive strong asymptotics of the associated orthogonal polynomials in the complex plane, which allows us to prove that Cauchy transforms of the normalized eigenvalue counting measures converge pointwise and which leads to a stronger notion of convergence. This is a joint work with Bartosz Trojan (Wrocław University of Science and Technology).