THOMAS BLOOM, University of Toronto

Complex zeros of random polynomials

Given a compact set $K \subset \mathbb{C}^m$, and τ an appropriate measure on K we consider random polynomials $H_n(z)$ whose coefficients with respect to an orthonormal basis in $L^2(\tau)$ for polynomials of total degree $\leq n$ are independent, identically distributed random variables having a general distribution (which includes normal complex and real Gaussians). We prove the almost sure convergence of $\frac{1}{n}\log|H_n(z)|$ in L^1_{loc} to the pluricomplex Green function of K and also the almost sure convergence of the zero currents of the random polynomials. This is joint work with N.Levenberg.