

Orthogonal polynomials and zeros of optimal approximants

Daniel Seco

Universitat de Barcelona

We study connections between orthogonal polynomials, reproducing kernel functions, and polynomials p minimizing Dirichlet-type norms $\|pf - 1\|$ for a given function f (which we call optimal approximants to $1/f$). We exploit them in order to determine the regions in the complex plane that are free from the zeros of the approximants.