

Analysis/Dynamical Systems Seminar

Thursday, March 31, 2016

4:00-4:50 pm in Hume 331

Paraorthogonal polynomials on the unit circle and their zeros

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Paraorthogonal polynomials on the unit circle are special sequences of polynomials whose zeros are simple and lie on the unit circle. In many contexts, they are the appropriate analog of orthogonal polynomials on the real line when the self-adjoint operator is replaced by a unitary operator. In this talk, we will review some basic properties of paraorthogonal polynomials on the unit circle and then discuss some recent results concerning their zero behavior. We will also discuss an application of paraorthogonal polynomials to electrostatics problems on the unit circle.