COMPLEX ANALYSIS SEMINAR

SPECTRUM OF THE KERZMAN-STEIN OPERATOR FOR MODEL DOMAINS

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ABSTRACT: For a smooth domain in the complex plane, the Cauchy integral gives a projection to the Hardy space that via the Kerzman-Stein equation can be seen to approximate the Szegö projection. The error in the approximation is captured by the Kerzman-Stein operator, a compact skew-Hermitian operator given by integration against a smooth kernel. In this talk we report on recent progress toward addressing a problem of Norberto Kerzman that seeks to relate the (imaginary) spectrum of the Kerzman-Stein operator to the geometry of the underlying domain.

Date: Thursday, December 1, 2011 Time: 4pm-5pm Place: UH 4500

Webpage: http://math.utoledo.edu/~sonmez/complexseminar.html