

TEMPLE UNIVERSITY

Department of Mathematics

Analysis Seminar

Room 617 Wachman Hall

Monday, January 22, 2018, 2:40 p.m.

*Spectral properties for layer potentials associated
with second and higher order elliptic PDE in rough
domains in two dimensions*

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Abstract: One of the classical methods for solving elliptic boundary value problems in a domain Ω is the method of layer potentials, whose essence resides in reducing the entire problem to solving an integral equation on $\partial\Omega$. In this talk I will discuss spectral properties of the intervening singular integral operators and show how the two-dimensional setting plays a special role in this analysis.