

TEMPLE UNIVERSITY

Department of Mathematics

Analysis Seminar

Room 617 Wachman Hall

Monday, October 9th, 2023, 2:30 p.m.

The Neumann Problem for the bi-Laplacian in Infinite Sectors

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Abstract: The study of boundary value problems associated with the bi-Laplacian operator Δ^2 plays an important role in the theory of elasticity, specifically in the Kirchhoff-Love theory of thin plates. The goal of this talk is to investigate the solvability of the L^p Neumann problem for the bi-Laplacian, for $p \in (1, \infty)$, in infinite sectors in two dimensions, using singular integral operators and Mellin transform techniques.

This is joint work with Irina Mitrea (Temple University) and Katharine Ott (Bates College).