TEMPLE UNIVERSITY

Department of Mathematics

Analysis Seminar

Room 617, Wachman Hall

Monday, December 5 , 2016, 2:40 pm

Mellin Transform Techniques for the Mixed Problem in Two Dimensions

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Abstract:

In this talk I will discuss the boundary value problem with mixed Dirichlet and Neumann boundary conditions for the Laplacian and the Lame system in infinite sectors in two dimensions. Using a potential theory approach the problem is reduced to inverting a singular integral operator (SIO) naturally associated with the problem on appropriate function spaces. Mellin transform techniques are then employed in the study of the spectrum of the aforementioned SIO.