TEMPLE UNIVERSITY

Department of Mathematics

Analysis Seminar

Room 617 Wachman Hall

Monday, December 4, 2017, 2:40 p.m.

On unique continuation at the boundary for harmonic functions and solutions of the Helmholtz equation

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Abstract: We will discuss results on local unique continuation at the boundary for holomorphic functions of one variable and for the solutions of the Helmholtz equation $L_c u = \Delta u + cu = 0$, $c \in \mathbb{R}$ in an open set of the half space $\mathbb{R}^n_+$ generalizing the theorems proved by Baouendi and Rothschild for harmonic functions. The results involve a local boundary sign condition on the product of the solution and a monomial. Applications to unique continuation for CR mappings will also be discussed.