

ANALYSIS & APPLICATIONS

seminar

SHARP CARLEMAN ESTIMATES FOR PARABOLIC AND WAVE OPERATORS WITH CRITICALLY SINGULAR POTENTIALS

SPEAKER: Bruno Vergara (ICMAT-UAM)

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ABSTRACT: In this talk I will discuss the role of Carleman estimates in the study of uniqueness problems related to heat and wave propagation through bounded domains in the presence of a critically singular potential. These problems are partially motivated by the connection between certain parabolic and wave equations with potentials diverging as an inverse square at the boundary and scalar equations posed near the infinity of asymptotically hyperbolic and asymptotically anti-de Sitter spaces, respectively. The talk is based in a joint work with A. Enciso (ICMAT) and A. Shao (QMUL).