

1051-35-23

Giles Auchmuty* (auchmuty@uh.edu), Dept of Mathematics, University of Houston, Houston, TX 77204-3008. *Mixed Steklov Eigenproblems and Partial Dirichlet to Neumann Maps.*

This talk will describe some results about mixed Steklov eigenproblems. These are Steklov eigenproblems for elliptic operators with zero Dirichlet conditions imposed on part of the boundary. They are of interest for the analysis of surface waves, in electrostatics - as well as for solvability conditions for mixed Dirichlet and Neumann elliptic boundary value problems. They also provide the eigenvalues and eigenfunctions for Dirichlet to Neumann maps where these only involve part of the boundary. (Received July 01, 2009)