Eigenvalue Asymptotics for Dirichlet-to-Neumann Operator

Abstract:

Let $X$ be a compact manifold with the boundary $\partial X$ and $R (i\cdot)$ be a Dirichlet-to-Neumann operator: $R (i\cdot): f \rightarrow u|_{\partial X}$ where $u$ solves $(\Delta + i\cdot)^2 u = 0$, $u|_{\partial X} = f$. We establish asymptotics as $i\cdot \rightarrow \pm \infty$ of the number of eigenvalues of $i\cdot R (i\cdot)$ between $s_1$ and $s_2$.

This is a joint work with Andrew Hassell, Australian National University.