Eigenvalue Asymptotics for Dirichlet-to-Neumann Operator

Abstract:

Let $X$ be a compact manifold with the boundary $\partial X$ and $R \, (i\nu)$ be a Dirichlet-to-Neumann operator: $R \, (i\nu): f \mapsto u|_{\partial X}$ where $u$ solves $(\Delta + i\nu^2) \, u = 0$, $u|_{\partial X} = f$. We establish asymptotics as $i\nu \to +\infty$ of the number of eigenvalues of $i\nu^{-1} \, R \, (i\nu)$ between $s_1$ and $s_2$.

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