IP/DIFFERENTIAL GEOMETRY/PDE SEMINAR

Tuesday, November 27, 2012
MEB 243
3PM–4PM

Geometry and the Dirichlet-to-Neumann map

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Finding sharp eigenvalue bounds and characterizing the extremals is a basic problem in geometric analysis. We will describe the structure of metrics which are obtained by maximizing the first eigenvalue of the Dirichlet-to-Neumann map over all metrics on a surface with boundary. It turns out that the extremals are related to minimal surfaces in the ball with a natural boundary condition, and in some cases it is possible to use minimal surface theory to characterize the extremal metrics. This is joint work with R. Schoen.

For more information about this seminar, visit the DG/PDE Seminar Web page (from the Math Department home page, `www.math.washington.edu`, follow the link **Seminars, Colloquia, and Conferences**).