

Speaker: Haomin Wen University of Notre Dame

> Thursday, April 21, 2016 10:30 AM 258 Hurley Hall

Title: From the boundary distance function to the Dirichlet to Neumann operator

Abstract:

I will talk about Pestov and Uhlmann's work on the boundary rigidity of simple two dimensional Riemannian surfaces. Lee and Uhlmann solved Calderón's inverse boundary problem for simple two dimensional Riemannian surfaces, which means that the conformal classes of the metrics on those surfaces are determined by the Dirichlet to Neumann operator. Pestov and Uhlmann showed later the Dirichlet to Neumann operator is determined by the boundary distance function, which leads to a proof of the boundary rigidity of simple two dimensional Riemannian surfaces.