DIFFERENTIAL GEOMETRY/PDE/IP SEMINAR

Wednesday, October 8, 2008
Padelford C-36
3:45–5PM

A Proof of Lens Rigidity in the Category of Analytic Metrics

James Vargo
(UW)

Consider a compact Riemannian manifold with boundary. If all maximally extended geodesics intersect the boundary at both ends, then to each geodesic $\gamma(t)$ we can form the triple $(\dot\gamma(0), \dot\gamma(T), T)$, consisting of the initial and final vectors of the segment as well as the length between them. The collection of all such triples comprises the lens data. In this talk, I will give a sketch of my proof that in the category of analytic Riemannian manifolds, the lens data uniquely determine the metric up to isometry. There are no convexity assumptions on the boundary, and conjugate points are allowed with very little restriction.

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**).