

Meeting: 1003, Atlanta, Georgia, SS 16A, AMS Special Session on Inverse Spectral Geometry, I

1003-58-173 **Harold G. Donnelly*** (hgd@math.purdue.edu), 150 North University Street, West Lafayette, IN 47907. *Spectral stability of symmetric spaces.*

Let (M, g) be a complete Riemannian manifold. We say that g is spectrally stable if for any compactly supported and sufficiently small two tensor h , the Laplacian of g is unitarily equivalent to the Laplacian of $g+h$. The notion of spectral stability was introduced by F. Xavier, who showed the spectral stability for hyperbolic space of dimension at least four. The lecture will provide a proof of the spectral stability of any symmetric space of noncompact type. (Received August 18, 2004)