

Meeting: 1006, Lubbock, Texas, SS 15A, Special Session on Discrete Groups, Homogeneous Spaces, Rigidity

1006-37-96 **David Fisher** and **Theron J Hitchman*** (theron@math.rice.edu), Mathematics Department
MS-136, Rice University, Houston, TX 77251. *Cocycle Superrigidity through geometry*. Preliminary
report.

We discuss a geometric approach to Zimmer's measurable cocycle superrigidity theorem. Our starting point is unpublished work of Korevaar and Schoen on harmonic maps from locally symmetric spaces to metric spaces of non-positive curvature.

The techniques are applicable to lattices in Lie groups which satisfy Kazhdan's property (T), including some groups of real rank one. (Received February 09, 2005)