Temple University Geometry Festival
Tuesday, March 24, 2009

First talk (2:00 PM)

Sergio Fenley (Florida State University)

will speak on

Rigidity of pseudo–Anosov flows transverse to $\mathbb{R}$–covered foliations

ABSTRACT: Pseudo–Anosov flows are extremely common in 3–manifolds and they are very useful. How many pseudo-Anosov flows are there in a manifold up to topological conjugacy? We analyse this question in the context of flows transverse to a given foliation F. We prove that if F is $\mathbb{R}$–covered (leaf space in the universal cover is the real numbers) then there are at most two pseudo-Anosov flows transverse to F. In addition if there are two, then the manifold is hyperbolic and the the foliation F blows down to a foliation topologically conjugate to the stable foliation of a particular type of an Anosov flow. The results use the topological theory of pseudo–Anosov flows, the universal circle for foliations and the geometric theory of $\mathbb{R}$–covered foliations. We also discuss the existence of transverse pseudo–Anosov flows in this setting.

Tuesday, 24 March 2009
Lectures at 2:00, 3:15, 4:30 pm
Coffee, tea, and refreshments from 3:00–5 pm
Room 617, Wachman Building
Department of Mathematics