GEOMETRY–TOPOLOGY SEMINAR

Karin Melnick

University of Maryland

will speak on

Normal forms for conformal vector fields

ABSTRACT: Isometries of Riemannian or pseudo–Riemannian manifolds are linearizable in the neighborhood of a fixed point via the exponential map. Conformal transformations, on the other hand, are not linearizable in general. I will present recent work with C. Frances toward normal forms for conformal vector fields on pseud-o-Riemannian manifolds for which the flow has bounded differential at a singularity. In particular, when the metric is real-analytic, we show such a flow either is linearizable, or the manifold is conformally flat, and the flow is locally conjugate to a conformal flow on the corresponding flat Minkowski space.

TUESDAY, 13 APRIL 2010
LECTURE AT 3:30 PM
ROOM 617, WACHMAN BUILDING
DEPARTMENT OF MATHEMATICS