

FRAME FLOW AND HYPERBOLIC RANK RIGIDITY

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In this talk I will show how the dynamics of the frame flow on a manifold of negative curvature can be used to prove a hyperbolic rank rigidity result. The result is that, under certain curvature pinching conditions, if a negatively curved manifold has higher hyperbolic rank (i.e. along every geodesic there is a parallel vector field making curvature -1 with the geodesic direction) then the manifold has constant curvature -1 .