Meeting: 1007, Santa Barbara, California, SS 6A, Special Session on Geometric Methods in Three Dimensions

1007-57-85 **Sergio R Fenley*** (fenley@math.fsu.edu), Department of Mathematics, Florida State University, Tallahassee, FL 32306. *Asymptotic behavior of foliations.* Preliminary report.

Let F be a foliation which is almost transverse to a pseudo-Anosov flow A in a closed 3-manifold M with negatively curved fundamental group. Suppose that A is a quasigeodesic flow (uniformly efficient in measuring distance in relative homotopy classes). We prove that, in the universal cover, the lifted leaves of extend continuously to the sphere at infinity, giving a continuous parametrization of their limit sets. This applies for instance to every Reebless finite depth foliation in hyperbolic 3-manifolds, which exists whenever the second Betti number of such a manifold is non zero. It also applies to large classes of foliations with all leaves dense and to infinitely many examples with one sided branching. One important tool is a careful analysis of one dimensional singular foliations induced in the leaves of F or by the stable/unstable foliations of the flow A. (Received February 03, 2005)