

## CONJUGATION PROBLEMS FOR HIRSCH FOLIATIONS

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In this thesis we study the problem of when two  $C^r$ -foliations of codimension one on compact manifolds which are topologically conjugate must be  $C^r$ -conjugate, or at least  $C^r$ -conjugate on exceptional minimal sets. The transverse geometry of an exceptional minimal set in codimension one is that of a geometric Cantor set, and for a Markov minimal set, there is a finite set of linearly contracting generators for the induced holonomy pseudogroup. Our main result gives a solution of the conjugacy problem for Markov minimal sets in terms of the asymptotic ratio function defined on the endset of the typical leaf in the minimal set. The solution is obtained by studying the conjugacy problem first on Cantor sets in the line, and then extending and interpreting this solution in the context of maps between foliations. The second part of this thesis is the investigation of the conjugacy problem for a class of codimension one foliations which generalize a construction by M. Hirsch.