1018-37-118 **Kamlesh Parwani*** (`parwani@math.uh.edu`), Department of Mathematics, University of Houston, Houston, TX 77204. *On 3-manifolds that support partially hyperbolic diffeomorphisms.* Preliminary report.

Let M be a 3-manifold that supports a partially hyperbolic and dynamically coherent diffeomorphism. We use the rich theory of codimension one foliations to show that the universal cover of M is homeomorphic to R^3. Furthermore, there exist infinitely many hyperbolic 3-manifolds that do not support dynamically coherent partially hyperbolic diffeomorphisms. (Received March 02, 2006)