The authors study the question of when an open manifold is the leaf of a foliation of a compact manifold. Three different approaches are taken.

The first examples are simply connected manifolds which are not homeomorphic to leaves of codimension one foliations. Here one replaces previous arguments based on the fundamental group with leafwise Pontryagin classes. The remaining examples assume the existence of chosen Riemannian metrics. One set of examples is based on local Pontryagin classes and the last type is based on entropy.

Reviewed by R. E. Stong

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