Cantwell, John; **Conlon, Lawrence**
Leafwise hyperbolicity of proper foliations. (English) Zbl 0768.57013
Comment. Math. Helv. 64, No. 2, 329-337 (1989).

Let M be a compact three-dimensional orientable manifold equipped with a codimension-one transversely orientable foliation F. Assume that all the leaves are proper and each component of the boundary of M is a leaf. The authors prove the existence of a leafwise hyperbolic (constant curvature -1) Riemannian metric on M if and only if no leaf of F is a torus or a sphere.

Reviewer: P.Walczak (Łódź)

MSC:

57R30 Foliations in differential topology; geometric theory
57N10 Topology of general 3-manifolds (MSC2010)
30F99 Riemann surfaces

Keywords:

leafwise hyperbolic Riemannian metric; compact three-dimensional orientable manifold equipped with a codimension-one transversely orientable foliation

Full Text: DOI EuDML