

1171-57-29

Jeffrey Norton* (janorton@wustl.edu). *Taut foliations and leafwise branch covers.*

In the 70's Sullivan introduced the term taut to describe smooth foliations of three-manifolds with leaves that are area minimizing. Sullivan proved geometric area minimization occurs if and only if every leaf meets a transverse loop. In fact, Sullivan gave a few equivalent definitions of tautness while studying structures transverse to foliations. In 2020, D. Calegari gave a new equivalent condition for tautness of a foliation, the existence of a map from the foliated three-manifold to the two-sphere that restricts on every leaf to a branched covering of the two-sphere. We will discuss these so called leafwise branch covers. (Received August 04, 2021)