

Minimal genus in circle bundles over 3-manifolds

Matthias Nagel

2016/03/03

I explain how twisted Reidemeister torsion is able to recover the Thurston norm of an irreducible 3-manifold completely. As an application, we estimate the genus function of a circle bundle over such a 3-manifold. If time permits, I describe how to construct surfaces, which in many situations realise the lower bound.