http://ptm-dmv.wmi.amu.edu.pl/

## Foliations of a given entropy type

## Paweł Walczak

University of Łódź, Poland pawelwal@math.uni.lodz.pl

Session: 12. Geometry and Topology of Manifolds

It is well known ([2], [3], [5]) that all the closed manifolds with zero Euler characteristic admit foliations of codimension one. In [1] (see also [4]), the notion of geometric entropy for foliations of closed Riemannian manifolds has been introduced. From the definition it follows easily that the conditions "zero entropy" or "positive entropy" do not depend on Riemannian structures. So, without referring to Riemannian structures, one has two types of foliations: these with zero entropy and those with positive entropy.

In the talk, we will discuss the problem of existence of codimension-one foliations of these two types.

## References

- E. Ghys, R. Langevin, P. Walczak, Entropie géométrique des feuilletages, Acta Math. 160, 1988, 105–142.
- [2] W. Likorish, A foliation for 3-manifolds, Ann. of Math. 82, 1965, 414-420.
- [3] W. Thurston, Existence of codimension-one foliations, Ann. of Math. 104, 1976, 249-268.
- [4] P. Walczak, Dynamics of Foliations, Groups and Pseudogroups, Birkhäuser 2004.
- [5] J. Wood, Foliations on 3-manifolds, Ann. of Math. 89, 1969, 336-358.