

Ergodicity of minimal codimension one foliations: a sufficient condition

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A renowned conjecture states, that a minimal (sufficiently smooth) codimension one foliation of a compact manifold is ergodic with respect to the Lebesgue measure. Its counterpart for the group actions says, that for a minimal smooth action of a finitely generated group on the circle the Lebesgue measure is ergodic. We will prove these conjectures under some dynamical assumption imposed on the foliation (or on the action), under which several other interesting conclusions can also be deduced.

A modification of the same condition can be interesting in the study of exceptional minimal sets. Namely, a conjecture due to Hector states, that an exceptional minimal set for a finitely generated action on the circle is of zero Lebesgue measure; the same can be asked for the exceptional minimal sets of codimension one foliations. We prove these conjectures under the correspondingly modified assumption on the action (or on the foliation).