The authors propose to generalize the notion of topological entropy of a flow to the case of a foliation $\mathcal{F}$ on a closed manifold $M$. To do this, a kind of parametrization is indispensable and a Riemannian metric $g$ on $M$ is adopted for this purpose. Thus, given $\mathcal{F}$ and $g$, there is defined a numerical invariant $h(\mathcal{F}, g)$ called the geometric entropy. However, its vanishing is independent of the choice of $g$. The authors show that $h(\mathcal{F}, g) = 0$ implies the existence of transverse invariant measures of $\mathcal{F}$. In the case of codimension-one foliations, they also show that $h(\mathcal{F}, g) = 0$ if and only if $\mathcal{F}$ does not have resilient leaves.

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