

Title: Ergodic study of some foliations,

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Abstract: The existence of invariant measures for foliation is very rare. A problem is then to find natural candidates describing the statistical behaviour of leaves.

In the 80's, Garnett developed a now classical tool, the harmonic measures, describing the behaviour of Brownian paths tangent to the leaves of a foliations. The aim of this talk is to show that other candidates exist.

In the context of foliated sphere bundles over a negatively curved surface, we show that when there is no transverse measure invariant by holonomy, there is:

-a unique harmonic measure,

-a unique SRB measure for the foliated geodesic flow (the geodesic flow in the leaves),

-a unique limit of large discs in the leaves,

and that there are simple examples where these measures are singular.