

# Partially hyperbolic diffeomorphisms with zero center exponent.

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Ledrappier proved that the invariant measures of linear cocycles having zero Lyapunov exponents have certain extra invariance. This was generalized by Avila and Viana for smooth cocycles, in particular they proved that the invariant measures for partially hyperbolic skew products have a disintegration invariant by holonomies, this is known as "invariance principle".

This has several applications, such as obtaining genericity of non-uniformly hyperbolic systems, finding physical measures, and classifying the measures of maximal entropy.

In this presentation we will generalize the invariance principle to partially hyperbolic non-skew products (without compact center leaves) which allows us to extend several of the previous applications to more general partially hyperbolic ones. In particular we will give an application to classify measures of maximal entropy of the perturbation of the time one map of Anosov flows.