

Random Dynamics and a formula for Furstenberg, Kullback-Ledrappier Entropy

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Abstract:

Joint with Aaron Brown, we found the following property for stationary measures of random composition of surface diffeomorphisms. Either the stable space is non-random, or the stationary measure is atomic or it is and SRB measure. This result generalize the work of Y. Benoist and J-F. Quint as well as the ones by A. Eskin and M. Mirzakhani to non-homogeneous, non affine setting. In the meantime we found a formula for the Furstenberg or Kullback-Ledrappier entropy involving Lyapunov exponents and dimensions. In this talk I will describe the results and some consequences of it.