Ergodicity and elliptic dynamics in surfaces of infinite measure

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Abstract

We will present new examples of cylinder flows, given by continuous skew product extensions of irrational rotations on the circle, that are ergodic and rationally ergodic along a subsequence of iterates. In particular, they exhibit law of large numbers. This is accomplished by calculating, for a subsequence of iterates, the number of visits to a region around level zero, and it is expected that such number has a gaussian distribution. This is a joint work in progress with Yuri Lima and Enrique Pujals.

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