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**Slobodan N. Simić\*** ([simic@math.sjsu.edu](mailto:simic@math.sjsu.edu)), Department of Mathematics, San Jose State University, San Jose, CA 95192-0103. *Oseledets regularity functions for Anosov flows.*

Oseledets regularity functions quantify the deviation between the growth associated with a dynamical system along its Lyapunov bundles and the corresponding uniform exponential growth. Precise degree of regularity of these functions is unknown. We show that for every invariant Lyapunov bundle of a volume preserving Anosov flow on a closed smooth Riemannian manifold, the corresponding Oseledets regularity functions are in  $L^p(m)$ , for some  $p > 0$ , where  $m$  is the probability measure defined by the volume form. We prove an analogous result for essentially bounded cocycles over volume preserving Anosov flows. (Received August 28, 2009)