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**Closed orbits in homology classes for Anosov flows.** (English) Zbl 0783.58059  
*Ergodic Theory Dyn. Syst.* 13, No. 2, 387-408 (1993).

We consider transitive Anosov flows  $\varphi : M \rightarrow M$  and give necessary and sufficient conditions for every homology class in  $H_1(M, \mathbb{Z})$  to contain a closed  $\varphi$ -orbit. Under these conditions, we derive an asymptotic formula for the number of closed  $\varphi$ -orbits in a fixed homology class, generalizing a result of Katsuda and Sunada.

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**MSC:**

**37D99** Dynamical systems with hyperbolic behavior  
**37C10** Dynamics induced by flows and semiflows  
**37A99** Ergodic theory

Cited in **27** Documents

**Keywords:**

closed orbit; winding cycles;  $L$ -functions; Anosov flows; homology

**Full Text:** [DOI](#)

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