998-51-195   **Ricardo Francisco Vila-Freyer*** (`vila@cimat.mx`), Centro de Investigacion en Matematicas, Apdo. Postal 402, 36000 Guanajuato, Guanajuato, Mexico. *The topology of Brownian Motion on a Riemannian Manifold.*Preliminary report.

Schwartzman constructed the asymptotic cycle associated with a measure preserving flow, as a cycle in the homology of a manifold. We do a similar construction for a curve of Brownian motion, obtaining a random variable in the homology of the manifold. (Received February 25, 2004)