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Jeffrey J Langford, Lewisburg, PA, and Patrick McDonald* (mcdonald@ncf.edu), Sarasota, FL. Exit time moments, eigenvalues and comparison results for manifolds with a lower Ricci curvature bound.

For smoothly domains in a complete Riemannian manifold, we study the relationship between the geometry of a domain and the L^1 -norms of the exit time moments of Brownian motion from the domain. We use the L^1 -norms of exit time moments to bound the Dirichlet eigenvalues and, when the manifold is closed and admits a lower Ricci curvature bound, we establish a comparison result for the sequence of L^1 -norms of the exit time moments. (Received January 27, 2019)