1047-58-51   **Harold Gerard Donnelly*** (`hgd@math.purdue.edu`), 150 North University Street, West Lafayette, IN 47907. *Positive curvature and eigenfunctions of the Laplacian.*

Let M be a noncompact Riemannian manifold with a complete metric of nonnegative Ricci curvature. We review recent positive and negative results concerning the existence of square integrable eigenfunctions for the Laplacian of M. (Received January 05, 2009)