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**Christopher D Sogge\*** (sogge@jhu.edu), Department of Mathematics, Johns Hopkins University, 3400 N Charles ST, Baltimore, MD 21218. *On the concentration of eigenfunctions.*

I shall present some results in global harmonic analysis that concern properties of eigenfunctions on compact Riemannian manifolds. Using local arguments we can show that  $L^p$  norms of eigenfunctions over the entire manifold are saturated if and only if there are small balls (if  $p$  is large) or small tubular neighborhoods of geodesics (if  $p$  is small) on which the eigenfunctions have very large  $L^p$  mass. Neither can occur on manifolds of nonpositive curvature, or, more generally, on manifolds without conjugate points. (Received July 09, 2017)