

# ABSENCE OF EMBEDDED EIGENVALUES FOR RIEMANNIAN LAPLACIANS

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We study absence of eigenvalues above some critical energy for the Schrödinger operator on a noncompact Riemannian manifold. A principal example is given by a manifold with an end endowed with an asymptotically Euclidean or hyperbolic metric. The critical energy is computed from the volume growth rate of the manifold, as well as the potential bound, at infinity. In a concrete case this actually gives the bottom of the essential spectrum, and this implies the absence of embedded eigenvalues. We characterize those geometric properties we require in terms of existence of a specific convex function. Our proof depends on a priori super-exponential decay of an eigenfunction and the unique continuation property. We use Mourre-commutator technique with respect to a conjugate operator defined by the generator of dilation group relevant to the convex function.