

1133-35-84

Steve Zelditch* (zelditch@math.northwestern.edu), Evanston, IL 60201, and **John A. Toth**, Montreal, Quebec, Canada. *Geometric control and numbers of nodal points on curves.*

We show that the number of nodal points (zeros) of a sequence S of Laplace eigenfunctions ϕ_j of a real analytic Riemannian manifold (M, g) on a real analytic curve C is bounded above by a constant times the frequency λ_j as long as the curve satisfies a condition we call S-good. Roughly speaking, S-good means that the sequence does not decay too fast when restricted to C . We then give sufficient conditions of a geometric control nature that a hypersurface H be good. When $\dim M = 2$, curves are hypersurfaces and the geometric control condition is sufficient for the upper bound on numbers of nodal points on the curve. Joint work with John Toth. (Received July 12, 2017)