

Mathematics Department Colloquium

Organizer: Maciej Zworski

Thursdays, 4:10–5:00pm, 60 Evans

Sept 15 **Christopher D. Sogge**, The Johns Hopkins University

Blowup rates for eigenfunctions and quasimodes

We study size estimates for eigenfunctions and quasimodes on compact Riemannian manifolds with and without boundary. We are interested in when these functions blowup at the maximal possible rate as measured by L^p rates as their energy goes to infinity. We wish to characterize what sort of geometries must be present for maximal blowup and conversely what geometries lead to sub-maximal blowup rates. This is joint work with John Toth and Steve Zelditch, and with Hart Smith.