

1087-11-159

**Matthew P Young\*** (myoung@math.tamu.edu). *Restrictions of automorphic forms and L-functions.*

I will discuss recent progress on some questions about automorphic forms having the common theme that one begins with an automorphic form on some space, and then one wishes to understand its behavior when restricted to a natural subspace. Does the form vanish along this subspace? How large can it be? These types of questions have connections to mathematical physics (quantum chaos), representation theory, and geometry. I will talk about some particularly nice examples where these investigations lead naturally to families of L-functions, where tools from analytic number theory play a crucial role. These are joint works with Valentin Blomer, Rizwan Khan, Xiaoqing Li, Sheng-Chi Liu, and Riad Masri, in various combinations. (Received December 03, 2012)