

1127-32-94

Steve Zelditch, 2033 Sheridan Rd, Evanston, IL 60208, and **Peng Zhou***
(pengzhou@math.northwestern.edu), 2033 Sheridan Rd, Evanston, IL 60208. *Zeros of random sections in S^1 -equivariant line bundles.*

Let (L, h) be an positive hermitian line bundle over a compact Kahler manifold $(M, \omega = Ric(h))$, with an holomorphic Hamiltonian S^1 -action acting on M and L , corresponding to the Hamiltonian $H : M \rightarrow \mathbb{R}$. For any interval $I = [a, b]$ in the image $H(M)$, and any positive integer k , we define a subspace $\mathcal{S}_{I,k} \subset H^0(M, L^k)$ spanned by S^1 -equivariant sections whose weights lie in the interval $k[a, b]$. This talk is about the zero loci for random sections in $\mathcal{S}_{I,k}$, and their different behaviors in the 'allowed region' $A = H^{-1}([a, b])$ and the 'forbidden region' $F = M \setminus A$. (Received January 25, 2017)