

The Hardy Space H_L^1 Associated with Schrödinger Operator

On The Heisenberg Group

Heping Liu (Peking University)

joint work with Chin-Cheng Lin and Yu Liu

In this talk we present some results about the Hardy space H_L^1 associated with a Schrödinger operator L on the Heisenberg group. We define the Hardy space H_L^1 in terms of the maximal function with respect to the semigroup $\{e^{-sL}\}$ and give the atomic decomposition of H_L^1 . Then we characterize H_L^1 by the Riesz transforms and the square functions related to L . We also investigate the dual space of H_L^1 , which is a kind of *BMO*-type space.