

Boundary value-problems: The Neumann problem in the Heisenberg group

Isidro Munive
CIMAT, Guanajuato

Abstract

The aim of this talk is to discuss new developments in the Neumann problem with L^p data in the Heisenberg group. The Heisenberg group is the most important prototype of a sub-Riemannian space. The study of boundary value problems for the sub-Laplacian in the Heisenberg group differs drastically from the ordinary Laplacian due to presence of the so-called characteristic points on the boundary. In this talk we are going to define characteristic points and show that at such points solutions can display behaviours quite different from classical harmonic functions.