

Carleson measure and inequality between square and nontangential maximal functions in Heisenberg group

Marcin Gryszówka
IMPAN

It is a well established result that the square function and nontangential maximal function are comparable in the Euclidean space for a good enough domain Ω . It is a crucial part of a proof that $|\nabla u|^2 \text{dist}(x, \partial\Omega)$ is a Carleson measure for a bounded harmonic function $u : \Omega \rightarrow \mathbb{R}$. We want to investigate inequality between the square function and nontangential maximal function in the setting of Heisenberg group and obtain a proper Carleson measure. In the talk I want to recall the proof in the Euclidean case and see what is necessary to get the desired result in Heisenberg group and why we can get a Carleson measure there.