

LACUNARY SPHERICAL MAXIMAL FUNCTION ON THE HEISENBERG GROUP

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Revisiting the spherical maximal function on \mathbb{R}^n , M. Lacey [4] has recently obtained a new proof of the theorems of Stein [8], Bourgain [1] and Calderon [3]. This was achieved by establishing a sparse bound for the spherical maximal function. In this talk we report a recent result proved in collaboration with Bagchi, Hait and Roncal [2] in the context of Heisenberg group. More precisely, we revisit the spherical maximal function on the Heisenberg group studied by Nevo-Thangavelu [7], Narayanan-Thangavelu [6] and Mueller-Seeger [5] and establish a sparse bound for the lacunary case thus proving an analogue of the theorem of Calderon.

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