COMPARISON OF HAUSDORFF MEASURES WITH RESPECT TO THE EUCLIDEAN AND THE HEISENBERG METRIC

ZOLTÁN M. BALOGH, MATTHIEU RICKLY AND FRANCESCO SERRA CASSANO

Abstract

We compare the Hausdorff measures and dimensions with respect to the Euclidean and Heisenberg metrics on the first Heisenberg group. The result is a dimension jump described by two inequalities. The sharpness of our estimates is shown by examples. Moreover a comparison between Euclidean and $\mathbb{H}$-rectifiability is given.

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