

# DIMENSION DISTORTION BY SOBOLEV MAPPINGS IN THE HEISENBERG GROUP

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Absolute continuity on almost every line is a characteristic feature of Sobolev mappings defined on Euclidean domains. In particular, a Sobolev mapping can only increase the dimension of a measure zero set of lines, and good estimates are known for the Hausdorff dimension of the set of lines whose dimension is increased by a specified amount. We study this phenomenon in the Heisenberg group, a non-commutative nilpotent Lie group that appears in a wide variety of mathematical settings. This is joint work with Zoltan Balogh and Jeremy Tyson.