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Title: Densities and uniformly distributed measures in the Heisenberg group.

Abstract: Marstrand in 1964 proved one fundamental result in Geometric Measure Theory, relating measure theoretic densities to the geometric structure of a measure. We will discuss recent developments related to Marstrand's density theorem. Among other things we establish Marstrand's theorem in the Heisenberg group, relying on an analysis of uniformly distributed measures . We provide a number of examples of such measures, illustrating both the similarities and the differences of this sub-Riemannian setting from its Euclidean counterpart.