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Developments on the Hölder equivalence question for the Heisenberg group

Abstract: In my talk I will discuss a recent development of the analysis of Hölder continuous mappings into the Heisenberg group. This line of research was initiated by Roger Züst with the motivation of answering the celebrated Hölder equivalence problem of Gromov. I will show that this method can be used to prove Gromov's theorem about non existence of Hölder embeddings of manifolds into \mathbb{H}^n if the Hölder continuity exponent is too large. Also I will show numerical evidence for a counterexample to a conjecture of Gromov. The talk will be based on my joint work with P. Hajłasz and A. Schikorra.