

# INSALATE DI MATEMATICA

presents

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*Stepanov Theorem in Heisenberg groups*



## Abstract:

The usual Stepanov Theorem states that every real multivariate function is differentiable almost everywhere on the set of points where it is pointwise Lipschitz. I will present a version for intrinsic graphs in sub-Riemannian Heisenberg groups. First, I will introduce the sub-Riemannian Heisenberg groups and explain what the intrinsic notions of (Lipschitz/differentiable) graphs are and then I will sketch the proof of the main result that, as in the classical case, is a consequence of Rademacher Theorem. The talk is based on a joint work with Andrea Pinamonti (Trento), Davide Vittone (Padova) and Kilian Zambanini (Trento).

## Keywords:

Riemannian Geometry · Heisenberg Groups · Stepanov Theorem

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*"Obvious" is the most dangerous word in mathematics.  
(Eric Temple Bell)*