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**Luca Capogna\*** (lcapogna@wpi.edu), Department of Mathematical Sciences, Worcester Polytechnic Institute, Worcester, MA 01609. *A Liouville theorem for quasiconformal mappings in sub-Riemannian manifolds.*

In a joint work with Enrico Le Donne (Jyvaskyla) and Alessandro Ottazzi (UNSW), we prove that every 1–quasiconformal map between domains in a sub-Riemannian contact manifold is a conformal diffeomorphism. More in general, we show that this result holds in every equiregular subRiemannian manifold that admits a regularity theorem for the subelliptic  $p$ –laplacian operator. The proofs involve ideas and techniques from analysis in metric space, differential geometry and PDE. Our work extends to the subRiemannian setting previous results of Gehring and Reshetnyak in Euclidean spaces, and Ferrand in the Riemannian setting. (Received July 18, 2016)