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Luca Capogna, Department of Mathematical Sciences, 100 Institute Road, Worcester, MA 01609, and **Xiaodan Zhou*** (xzhou3@wpi.edu), Department of Mathematical Sciences, 100 Institute Road, Worcester, MA 01609. *Strong Comparison Principle for p -harmonic functions in Carnot-Carathéodory spaces.*

We extend Bony's propagation of support argument to C^1 solutions of the non-homogeneous sub-elliptic p -Laplacian associated to a system of smooth vector fields satisfying Hörmander's finite rank condition. As a consequence, we prove a strong maximum principle and strong comparison principle that generalize results of Tolksdorf. This is joint work with Luca Capogna. (Received January 08, 2018)