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Title: Obstacle-type problems for the sub-Laplacian

Abstract. We present the obstacle problem in the Euclidean setting and for left invariant Hörmander vector fields. Then we focus our attention on the no-sign obstacle problem in stratified groups. We discuss the sharp regularity for solutions to this problem. This corresponds to the $C^{1,1}$ regularity with respect to the control distance induced by the vector fields. The main ideas are based on a suitable blow-up technique and on the Caffarelli's method of approximation by harmonic polynomials. These results have been obtained in collaboration with Andreas Minne (KTH Royal Institute of Technology).