94b:35075 35H05 35B99 35R45

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Embedding theorems and the Harnack inequality for solutions of nonlinear subelliptic equations. (English. English, French summary)

C. R. Acad. Sci. Paris Sér. I Math. **316** (1993), no. 8, 809–814. Summary: "We consider a class of nonlinear subelliptic equations whose model is given by

$$\sum_{j=1}^{m} X_{j}^{*}(|D_{\mathcal{L}}u|^{p-2}X_{j}u) = 0, \quad 1$$

Here, X_1, \dots, X_m are C^{∞} vector fields satisfying Hörmander's hypoellipticity condition and X_j^* denotes the formal adjoint of X_j . We prove an optimal imbedding theorem of Sobolev type and a uniform Harnack inequality with respect to the metric associated to X_1, \dots, X_m ."