1002-35-38 **Giuseppe Di Fazio*** (`difazio@dmi.unict.it`), Italy, and **Pietro Zamboni**. *Fefferman – Poincare inequality and regularity for quasilinear subelliptic equations.*

Regularity for weak solutions of quasi linear sub elliptic equations of the form

$$\sum_{j=1}^{m} X_j^* A_j(x, u(x), Xu(x)) + B(x, u(x), Xu(x)) = 0 \,. \tag{1}$$

is studied under sharp assumptions on the lower order terms. We obtain a continuity result and a Hölder continuity result for weak solutions. The results are achieved using a suitable imbedding estimate involving functions in some class of potentials. (Received July 19, 2004)