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ON SOME QUALITATIVE PROPERTIES OF SOLUTIONS OF DEGENERATED QUASILINEAR EQUATIONS

Abstract

In the paper questions on the existence and uniqueness of generalized solution of the Dirichlet problem for the equation of the form

$$\sum_{i,j=1}^{n} \frac{\partial}{\partial x_i} \left(a_{ij}\left(x, u, Du\right) \right) \frac{\partial u}{\partial x_j} = f\left(x\right) \tag{1}$$

in weighted Sobolev's classes and some qualitative properties of the obtained solution are investigated.