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ON SOLVABILITY OF NEUMANN PROBLEM FOR CORDESS TYPE QUASILINEAR ELLIPTIC EQUATIONS

Abstract

In the paper the strong solvability of Neuman problem

$$\sum_{i,j=1}^{n} a_{ij}(x,u,u_x)\frac{\partial^2 u}{\partial x_i \partial x_j} - \frac{\omega^2 Tra}{n-1}u = b(x,u,u_x)$$

a.e. $x \in D$;

$$\frac{\partial u}{\partial n} = 0$$

in Sobolev space $\tilde{W}^{2,2}(D)$, *for some class of quasilinear elliptic equations with parameter* ω, *whose leading coefficents satisfy Cordess condition has been proved.*