

On regularity for nonlinear elliptic systems of second order

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Abstract

In this paper we discuss the problem of the regularity of the gradient of weak solutions to nonlinear elliptic systems

$$-D_\alpha a_i^\alpha(x, Du) = -D_\alpha f_i^\alpha(x) + f_i(x), \quad i = 1, \dots, N,$$

where the coefficients $a_i^\alpha(x, Du)$ have some special form and they may be discontinuous in general.