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Existence Results for a Non Coercive Homogeneous Nonlinear Elliptic Equation

Let $a : \mathbb{R}^n \rightarrow \mathbb{R}^n$ be monotonic, but unnecessarily strictly monotonic. We study the existence of Lipschitz or locally Lipschitz solutions to the equation $\operatorname{div} a(\nabla u) = 0$ when the Lipschitz boundary datum fulfills some recent unilateral Bounded Slope Conditions.

Keywords: Lipschitz, nonlinear, degenerate, elliptic, pde, convex.

MSC: 35J70, 35J15, 49K20