

Lipschitz regularity for local minimizers of some widely degenerate problems

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Abstract. We consider local minimizers of the functional

$$\sum_{i=1}^N \int (|u_{x_i}| - \delta_i)_+^p dx + \int f u dx,$$

where $\delta_1, \dots, \delta_N \geq 0$ and $(\cdot)_+$ stands for the positive part. Under suitable assumptions on f , we prove that local minimizers are Lipschitz continuous functions if $N = 2$ and $p \geq 2$, or if $N \geq 2$ and $p \geq 4$.

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