On the L^{∞} -regularity for fractional Orlicz problems via Moser's iteration

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May 19, 2022

Abstract

It is established \$L^{p}\$ estimates for the fractional \$\Phi\$-Laplacian operator defined in bounded domains where the nonlinearity is subcritical or critical in a suitable sense. Furthermore, using some fine estimates together with the Moser's iteration, we prove that any weak solution for fractional \$\Phi\$-Laplacian operator defined in bounded domains belongs to \$L^\infty(\Omega)\$ under appropriate hypotheses on the \$N\$-function \$\Phi\$. Using the Orlicz space and taking into account the fractional setting for our problem the main results are stated for a huge class of nonlinear operators and nonlinearities.

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