

Existence of Solutions for Elliptic Problems Involving $p(x)$ –Laplacian in unbounded domain. *

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Abstract

In this paper we study a class of nonlinear elliptic problems involving the $p(x)$ –Laplacian operator. Under some additional assumptions on the nonlinearities, the corresponding functional verifies the Palais-Smale condition. So, we can use the Mountain Pass Theorem to prove the existence of nontrivial solution.

Key words: $p(x)$ –Laplacian, elliptic problem, mountain pass theorem, Palais-Smale condition

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