Nonlinear Problems Involving $p(x)$ –Laplacian in Unbounded Domain.

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Résumé:
We consider the nonlinear eigenvalue problem

$$-\Delta_{p(x)}u = f(x,u), \text{ in } \mathbb{R}^N$$

in $\mathbb{R}^N$ with $p(x), q(x) > 1$. In this work, using the classical variational method we show the existence of the solution.

Mots-Clés : $p(x)$-Laplacian, nonlinear elliptic problem, lower semicontinuous