

Anisotropic nonlinear problem of infinite order with variables exponents and L^1 data

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Abstract

In this paper, we prove the existence of solutions for the strongly nonlinear equation of the type $Au + g(x, u) = f$ where A is an elliptic operator of infinite order from a functional Sobolev spaces of infinite order with variables exponents to its dual. $g(x, s)$ is a lower order term satisfying essentially a sign condition on s and the second term f belongs to $L^1(\Omega)$.

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