



MIXED BOUNDARY VALUE PROBLEM FOR A CLASS OF
QUASI-LINEAR ELLIPTIC OPERATORS CONTAINING
 $p(\cdot)$ -LAPLACIAN IN A VARIABLE EXPONENT SOBOLEV
SPACE

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Abstract. In this paper, we consider a mixed boundary value problem to a class of quasi-linear elliptic operators containing a $p(\cdot)$ -Laplace operator in a variable exponent Sobolev space. We show the existence of a unique weak solution and an estimate. We also demonstrate the continuity of the solution on the given data. Furthermore, we consider the dual problem to a minimization problem.

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