EXISTANCE AND REGULARITY OF THE SOLUTION FOR NONLINEAR AND OBLIQUE PROBLEMS WITH FRICTION

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Abstract

In this paper we consider the nonlinear boundary value problem governed by a stationary perturbed elasticity system with mixed boundary conditions (Tresca-Dirichlet- maximal monotone graph), in a smooth domain. We first establish the existence result and some estimates for weak solutions of its approached problem. A specific regularity of the displacement field is obtained. The proof is based on the approach of maximal monotone graph by its Yosida regularization and the contraction method.

Keywords: Regularity, Elasticity, Maximal monotone graph

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