

Nguyen Duc Huy, Jana Stará

On existence and regularity of solutions to a class of generalized stationary Stokes problem

Comment.Math.Univ.Carolin. 47,2 (2006) 241-264.

Abstract: We investigate the existence of weak solutions and their smoothness properties for a generalized Stokes problem. The generalization is twofold: the Laplace operator is replaced by a general second order linear elliptic operator in divergence form and the “pressure” gradient ∇p is replaced by a linear operator of first order.

Keywords: generalized Stokes problem, weak solutions, regularity up to the boundary

AMS Subject Classification: 76D03, 76D07, 35Q30, 35J55