POSTER

Stokes equation with Navier boundary condition

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Résumé
We study the stationary Stokes and Navier-Stokes equations with non-homogeneous Na-vier boundary condition in a bounded set Ω in $\mathbb{R}^3$ of class $C^{1,1}$. We prove the existence, uniqueness of weak solution in $W^{1,p}(\Omega)$ and strong solution in $W^{2,p}(\Omega)$ for all $1 < p < \infty$ considering the possible minimal regularity of the friction coefficient $\alpha$. Moreover, we analyze the behavior of the solution with respect to the friction coefficient.

Keywords. Stokes and Navier-Stokes equations, Navier slip boundary condition, $L^p$-regularity, limit problem

Références