

On the Stokes operator with first order boundary conditions on unbounded domains

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Abstract

On unbounded domains $\Omega \subset \mathbb{R}^d$, which are uniformly $C^{2,1}$, we study the Stokes operator with Hodge, Navier, and Robin boundary conditions. We present results on the boundedness of Hörmander and H^∞ functional calculi in L^q -spaces. Moreover, we take a look on optimal regularity estimates of type L^p - L^q for inhomogeneous boundary data.