Boundary Value Problems for the Stokes System on Rough Subdomains of Riemannian Manifolds

Brock Schmutzler
University of Missouri

Abstract

We adapt the boundary layer method for the purpose of treating boundary value problems of Dirichlet and Neumann type for the Stokes system considered on subdomains of Riemannian manifolds. The main novel aspect is the considerations of domains of a very general nature whose regularity properties are best expressed in the language of geometric measure theory.