Determination of viscosity in the stationary Navier-Stokes equations

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Abstract

In this work we consider the unique determination of the viscosity in an incompressible fluid. Assume that a bounded domain is filled with an incompressible fluid and the velocity vector field satisfies the stationary Navier-Stokes equations with a variable viscosity. We show that the viscosity function can be determined from the knowledge of the boundary data. This is a joint work with J.-N. Wang.