Vanishing viscosity limit for incompressible flows with symmetry.

Milton Lopes Filho, Instituto de Matemática - UFRI

In this talk, we describe results on the vanishing viscosity limit and the boundary layer behavior of incompressible flows between two parallel plates or inside a straight circular cylinder, under certain symmetry assumptions. The objective is to understand the vorticity produced by the interaction of the incompressible fluid and the solid wall, as illustrations of the behavior expected in the general problem and as test cases for numerical methods