

## Anis Dhifaoui

**Title:** Exterior Stokes Problem with Navier Slip Boundary Conditions: Weighted Hilbert Setting and Limiting Behavior

**Abstract:** This talk presents an analysis of the steady flow of a viscous and incompressible fluid past an obstacle, within the framework of the three-dimensional Stokes problem with Navier slip boundary conditions. The study is carried out in weighted Sobolev spaces, which allow us to control the behavior of the flow at infinity and to establish existence and uniqueness results. Finally, we examine the limiting regimes corresponding to perfect slip and no-slip conditions, obtained as the friction coefficient tends to zero or to infinity, respectively.