



UNIVERSITÀ  
DEGLI STUDI  
DI BRESCIA



DIPARTIMENTO DI INGEGNERIA CIVILE  
ARCHITETTURA, TERRITORIO, AMBIENTE  
E DI MATEMATICA

## On Leray's problem with the Navier-slip boundary condition

Prof. Jiaqi Yang

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Martedì 28 novembre 2023 alle ore 11:00  
Aula Seminari della Sezione di Matematica del DICATAM

**Abstract:** The original Leray's problem concerns the well-posedness of weak solutions to the steady incompressible Navier-Stokes equations in a distorted pipe, which approach to the Poiseuille flow subject to the no-slip boundary condition at spacial infinity. In this talk, we will discuss the same problem with the Navier-slip boundary condition instead of the no-slip boundary condition. Our recent developments on this aspect will be presented. This is a joint work with Zijin Li and Xinghong Pan.

## Remarks on the energy equality for the Navier-Stokes equations

Prof. Hugo Beirão da Veiga  
Università di Pisa

Martedì 28 novembre 2023 alle ore 12:00  
Aula Seminari della Sezione di Matematica del DICATAM

**Abstract:** We discuss integral sufficient conditions on  $u$ , on its gradient, and mixed, to guarantee the equality of the energy for solutions of the Navier-Stokes equations. We turn back to an innovative interpretation of some main parameters which allows us to overcome some apparent incongruence.



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