

Seminário de EDP - 2023

Título/Title:

Null controllability of a class of non-Newtonian incompressible viscous fluids

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Data: 28/11 (terça-feira)

Hora: 13h

Local: Sala 407 - Bloco H - Campus Gragoatá

Resumo/Abstract

We investigate the null controllability property of systems that mathematically describe the dynamics of some non-Newtonian incompressible viscous flows. The principal model we study was proposed by O. A. Ladyzhenskaya, although the techniques we develop here apply to other fluids having a shear-dependent viscosity. Taking advantage of the Pontryagin Minimum Principle, we utilize a bootstrapping argument to prove that sufficiently smooth controls to the forced linearized Stokes problem exist, as long as the initial data in turn has enough regularity.
