

Barbu, Viorel

Controllability of parabolic and Navier-Stokes equations. (English) Zbl 1010.93054
Sci. Math. Jpn. 56, No. 1, 143-211 (2002).

This paper is a survey of some recent advances (due to the author, O. Yu. Imanuvilov and others) on exact controllability, both distributed and boundary, of linear and nonlinear parabolic equations and the Navier-Stokes equations. The key threads running through the material are Carleman inequalities and associated results.

Reviewer: [Hector O.Fattorini \(Los Angeles\)](#)

MSC:

[93C20](#) Control/observation systems governed by partial differential equations Cited in **49** Documents
[93B05](#) Controllability
[35Q30](#) Navier-Stokes equations
[35K05](#) Heat equation
[76D55](#) Flow control and optimization for incompressible viscous fluids

Keywords:

[exact controllability](#); [parabolic equations](#); [Navier-Stokes equations](#); [Carleman inequalities](#)