

Librería  
*Bonilla y Asociados*  
desde 1950



**Título:** Navier-Stokes Equations In Planar Domains

**Autor:** Matania Ben-Artzi (Author), Jean-Pierre Croisille  
(Author)

**Precio:** \$1637.46

**Editorial:**

**Año:** 2013

**Tema:**

**Edición:** 1<sup>a</sup>

**Sinopsis**

**ISBN:** 9781848162754

This volume deals with the classical Navier-Stokes system of equations governing the planar flow of incompressible, viscous fluid. It is a first-of-its-kind book, devoted to all aspects of the study of such flows, ranging from theoretical to numerical, including detailed accounts of classical test problems such as "driven cavity" and "double-driven cavity".

A comprehensive treatment of the mathematical theory developed in the last 15 years is elaborated, heretofore never presented in other books. It gives a detailed account of the modern compact schemes based on a "pure streamfunction" approach. In particular, a complete proof of convergence is given for the full nonlinear problem.

This volume aims to present a variety of numerical test problems. It is therefore well positioned as a reference for both theoretical and applied mathematicians, as well as a text that can be used by graduate students pursuing studies in (pure or applied) mathematics, fluid dynamics and mathematical physics.

**Readership:** Graduate students and researchers in applied mathematics (particularly computational fluid dynamics), partial differential equations, and mathematical physics (specifically nonlinear evolution equations).