



## Nonlinear Problems in Mathematical Physics and Related Topics II: In Honour of Professor O.A. Ladyzhenskaya

By -

Springer. Hardcover. Book Condition: New. Hardcover. 380 pages. Dimensions: 8.6in. x 7.0in. x 1.2in. The main topics reflect the fields of mathematics in which Professor O. A. Ladyzhenskaya obtained her most influential results. One of the main topics considered in the volume is the Navier-Stokes equations. This subject is investigated in many different directions. In particular, the existence and uniqueness results are obtained for the Navier-Stokes equations in spaces of low regularity. A sufficient condition for the regularity of solutions to the evolution Navier-Stokes equations in the three-dimensional case is derived and the stabilization of a solution to the Navier-Stokes equations to the steady-state solution and the realization of stabilization by a feedback boundary control are discussed in detail. Connections between the regularity problem for the Navier-Stokes equations and a backward uniqueness problem for the heat operator are also clarified. Generalizations and modified Navier-Stokes equations modeling various physical phenomena such as the mixture of fluids and isotropic turbulence are also considered. Numerical results for the Navier-Stokes equations, as well as for the porous medium equation and the heat equation, obtained by the diffusion velocity method are illustrated by computer graphs. Some other models describing various processes in continuum mechanics are studied...



**READ ONLINE**

### Reviews

*A must buy book if you need to adding benefit. Of course, it is actually perform, still an interesting and amazing literature. I am delighted to explain how this is basically the best book i actually have read through during my individual life and may be he best book for at any time.*

-- **Jarod Bartoletti**

*It is an remarkable pdf that I actually have actually read. It really is packed with knowledge and wisdom I am very happy to tell you that this is the finest ebook i actually have go through during my very own life and may be he very best book for actually.*

-- **Hailey Jast Jr.**