

# Contents

<b>Foreword</b> .....	vii
Claude Bardos: <i>What Use for the Mathematical Theory of the Navier–Stokes Equations</i> .....	1
Markus Bause, John G. Heywood, Antonín Novotný and Mariarosaria Padula: <i>An Iterative Scheme for Steady Compressible Viscous Flow, Modified to Treat Large Potential Forces</i> .....	27
Catherine Cherfils–Clérouin, Olivier Lafitte and Pierre–Arnaud Raviart: <i>Asymptotic Results for the Linear Stage of the Rayleigh–Taylor Instability</i> ...	47
Eduard Feireisl: <i>Recent Progress in the Mathematical Theory of Viscous Compressible Fluids</i> .....	73
Miloslav Feistauer: <i>Numerical Methods for Compressible Flow</i> .....	105
Susan Friedlander and Alexander Shnirelman: <i>Instability of Steady Flows of an Ideal Incompressible Fluid</i> .....	143
Jiří Fürst, Michal Janda and Karel Kozel: <i>Finite Volume Solution of 2D and 3D Euler and Navier–Stokes Equations</i> .....	173
John G. Heywood: <i>On a Conjecture Concerning the Stokes Problem in Nonsmooth Domains</i> ...	195
Hideo Kozono: <i>On Well–Posedness of the Navier–Stokes Equations</i> .....	207
Jiří Neustupa and Patrick Penel: <i>Anisotropic and Geometric Criteria for Interior Regularity of Weak Solutions to the 3D Navier–Stokes Equations</i> .....	237
<b>Appendix</b> .....	267
<b>List of Authors</b> .....	269