

CONTENTS

Foreword	ix
Preface	xi
Two-frequency Rayleigh-Taylor and Richtmyer-Meshkov Instabilities	1
<i>G.R. Baker</i>	
On the Accuracy of Vortex Methods at Large Times	19
<i>J. Thomas Beale</i>	
Numerical Problems Connected with Weather Prediction	33
<i>G. Browning and Heinz-Otto Kreiss</i>	
Vortex Methods for the Incompressible Euler and Navier-Stokes Equations	47
<i>G.H. Cottet, S. Mas-Gallic, and P.A. Raviart</i>	
On the Numerical Simulation of Turbulent Flows around Vehicles	69
<i>F. Hecht and O. Pironneau</i>	
Streamline Diffusion Finite Element Methods for Incompressible and Compressible Fluid Flow	87
<i>Claes Johnson</i>	
Hyperbolicity, Change of Type, Wave Speeds and Related Matters	107
<i>D.D. Joseph</i>	
Dynamics of Hot-Spot Evolution in a Reactive, Compressible Flow	123
<i>A.K. Kapila and T.L. Jackson</i>	
Numerical Prediction of Internal Flows	151
<i>Egon Krause</i>	
On the Universal Role of Turbulence in the Propagation of Deflagrations and Detonations	169
<i>John H.S. Lee</i>	
Numerical Modeling of the Initiation of Reacting Shock Waves	195
<i>Andrew Majda and Victor Roytburd</i>	

On the Accuracy of Finite Element and Finite Difference Predictions of Non-Newtonian Slot Pressures for a Maxwell Fluid	219
<i>David S. Malkus and Michael F. Webster</i>	
Flame Propagation and Growth to Detonation in Multiphase Flows	257
<i>J.W. Nunziato and M.R. Baer</i>	
Computations of Compressible Reactive Flows	291
<i>Elaine S. Oran</i>	
Computation of Flows Containing Edge Vortices	307
<i>Arthur Rizzi, and Earll M. Murman</i>	
Large Eddy Interaction with Propagating Flames	333
<i>J.A. Sethian</i>	