## CONTENTS

		Page
	PREFACE	Si.
1.	A Survey of Finite Differences with Upwinding for Numerical Modelling of the Incompressible Convective Diffusion Equation.  B.P. LEONARD	1
2.	A Finite Element Method for the Numerical Solution of Transient Inviscid Incompressible Flows. M. BERCOVIER, G. BERWALD and O. PIRONNEAU	37
3.	Differential Analysis of Strong Discontinuities in One Dimensional Gas Flow. N.N. YANENKO and E.V. VOROZHTSOV	59
4.	Solution of the Unsteady Navier-Stokes Equations by a Finite-Element Projection Method. J. DONEA, S. GIULIANI, H. LAVAL and L.QUARTAPELLE	97
5.	Large Scale Weather Forecasting Using Finite Element Methods. M.J.P. CULLEN	133
6.	Variational Formulation of Free Surface Gravity Flow Including Gated Flow Using Adaptive Finite Elements. W.D. LIAM FINN and E. VAROGLU	165
7.	Iterative Procedure for Simultaneous Calculation of a Stress Transport Turbulence Model in Two Dimensional Eliptic Fields D. NOAT	191
8.	Computer Analysis of Fluid Flow and Heat Transfer S.V. PATANKER	223
9.	Approaches to the Finite Element Solution of Dimensional Turbulent Flows. B.E. LAROCK and D.R. SCHAMBER	253
0.	Analysis of Turbulent Flow with Separation Using the Finite Element Method. C. TAYLOR, C.E. THOMAS and K. MORGAN	283
	SUBJECT INDEX	