

23.	H. OKAMOTO "Boundary element method for chemical reaction system in convective diffusion"	990
24.	M. SAKAKIHARA and M. IKEUCHI "Characteristics integration method for one- dimensional initial value problems of the convective diffusion equation"	1002
25.	A.N. STOKES and M.G. BARTON "Computing shear dispersion in parallel flow"	1010

PART 11

SECTION 6 TURBULENT HEAT TRANSFER

1.	H. IACOVIDES and B.E. LAUNDER "ASM predictions of turbulent momentum and heat transfer in coils and U-bends"	1023
2.	B. SUNDÉN "On some accuracy aspects in numerical solution of flow and heat transfer problems"	1046
3.	E. SAATDJIAN, B. ROWE, R. PRUD'HOMME and F. VALLÉE "Numerical simulation and numerical experiments of a rarified, high temperature Argon plasma inside a constant temperature cylindrical tube"	1058
4.	A.A. EL-HADIK, M.M. MAHGOB and M.A. SHALABY "A study of heat and fluid flow in cusped ducts in laminar case"	1069
5.	M.H. BERGER "Practical finite element computations of multidimensional source/sink flows in a gas centrifuge"	1089
6.	Zs. RÉVÉSZ "An approach to the numerical modelling of the shell side fluid flow in a steam condensor"	1102
7.	J.A. SCHMITT "Multidimensional flows inside a tube behind an accelerating piston"	1115
8.	J. VLACHOPOULOS, C. TZOGANAKIS and E. HAMIELEC "Numerical simulation of reactive polymer flows"	1127

- | | | |
|-----|---|------|
| 9. | Th. H. VAN DER MEER
"On the numerical calculation of stagnation
point heat transfer using the k- ϵ model of
turbulence" | 1138 |
| 10. | Y. GEYER, A. APELBLAT and E. BAR-ZIV
"Reacting turbulent flows produced by two
concentric tubes of finite wall thickness" | 1147 |
| 11. | T.S. LEE
"Distorted false transient approach to steady
state problems in fluid mechanics and heat
transfer" | 1157 |

SECTION 7 INTERACTIVE FLOW

- | | | |
|----|---|------|
| 1. | L.A. FRASER and P.W. CARPENTER
"A numerical investigation of hydroelastic
and hydrodynamic instabilities in laminar
flows over compliant surface comprising one
or two layers of viscoelastic material" | 1171 |
| 2. | P.G. PATTANI and M.D. OLSON
"Stability of non linear solutions of rigid
body - viscous flow interaction" | 1182 |
| 3. | J.I. RAMOS
"Multicomponent gas bubble dynamics in glass
melts" | 1194 |
| 4. | H.A. KHATER
"A coupled fuel rod thermal analysis/channel
non-equilibrium two phase flow model" | 1206 |
| 5. | I.R. ELLUL, R.I. ISSA and M.K. LOONEY
"Numerical computation of multi-dimensional
multiphase flow" | 1218 |
| 6. | M.A. KHALIFA and C. DALTON
"Breaking waves at the interface of two
slightly viscous fluids" | 1232 |
| 7. | A.A. LAKIS
"Prediction of shell response and wall pressure
fluctuations in turbulent single and two-phase
flows" | 1244 |

- | | | |
|-----|--|------|
| 8. | J.C. FERRARI and G.M. GRANDI
"Models for the study of local effects produced
by a high-level radioactive waste repository" | 1256 |
| 9. | M. MILLERET, D. HOUÏ and B. LE GUENNEC
"Numerical and experimental study of capture
mechanics of particles on a series of parallel
cylinders" | 1268 |
| 10. | M. RAHMAN
"Approximating non-linear waves forces on
square caissons" | 1280 |
| 11. | Y. GONG
"Incremental and iterative methods for solving
fluid/structure interaction problems" | 1292 |

SECTION 8 FREE SURFACE FLOW

- | | | |
|----|--|------|
| 1. | G.A. KERAMIDAS and O.M. GRIFFIN
"Numerical simulation of wave flow in a
convergent channel" | 1303 |
| 2. | I.P.E. KINMARK and W.G. GRAY
"A generalized wave equation formulation of
tidal circulation" | 1312 |
| 3. | M.S. ENGLEMAN and R.L. SANI
"Finite element simulation of temperature
dependent free surface flows" | 1325 |
| 4. | N.E. BIXLER and R.E. BENNER
"Finite element analysis of axisymmetric
oscillations of sessile liquid drops" | 1336 |
| 5. | B. SCHAEFFER
"A Lagrangian solid element method for large
amplitude movement of a compressible fluid
with a free surface" | 1348 |
| 6. | V. CASULLI, G. PONRELLI and P. SECCHI
"An Eulerian-Lagrangian method for open channel
flows" | 1360 |
| 7. | P. PRINOS and R.D. TOWNSEND
"Numerical modelling of turbulent flow in
compound open channels" | 1371 |

8.	A-S. CHENG "Finite element approximation in variational formulation for solving the unsteady Reynolds equation of marine current"	1385
9.	S.M. RÄSÄNEN and E-M. SALONEN "A u,v formulation for free surface flow"	1393
10.	R. KEUNINGS "Numerical simulation of moving boundary problems involving highly elastic fluids"	1402
11.	E. MITSOULIS "Melt flow in polymer processing using finite elements"	1413

SECTION 9 COMBUSTION AND COMPRESSIBLE FLOW

1.	A.C. BUCKINGHAM "Compressible two phase flow instabilities simulated with a hybrid Lagrange-Euler pseudospectral method"	1427
2.	M.C. MARKATOS and P. SHAH "Turbulence modelling in internal combustion engines"	1439
3.	K. KNOWLES and P.W. CARPENTER "A study of the time-dependent method for calculating transonic flows in convergent nozzles"	1455
4.	J.M. JONES, G.H. JIRKA and D.A. CAUGHEY "A numerical method for steady, two dimensional transonic flows"	1465
5.	L.G. MARGOLIN "Gradient scaling for non-uniform meshes"	1477
6.	A. AMENDOLA, C. DE NICOLA, V. LOSITO and D. VITIELLO "A numerical model for turbulent separated flows past airfoils"	1489
7.	C-Y. GU and L. FUCHS "Numerical computation of transonic airfoil"	1513

8.	M.A. FRY and S. EIDELMAN "Shock and structure interaction in three dimensional flow"	1513
9.	M.M.M. ABOU-ELLAIL "Prediction of irregular axisymmetric combusted aerodynamics and convective heat transfer"	1519
10.	J.J. PYUN, J.S. SALTZMAN, A.J. SCANNAPIECO and D. CARROLL "An adaptive rezoner in a two-dimensional Lagrangian hydrodynamic code"	1531
11.	A.H.A. KARAMALLA "A study of the combined effect of some internal ballistic parameters on the pressure behaviour of solid propellant rocket motor"	1544
12.	G. CHIATTI and R. RUSCITTI "Simulation of unsteady phenomena in gasoline engine intake systems"	1553
13.	C. CAREY, S.M. FRASER and G. WILSON "Experimental assessment of a CAD method for mixed-flow pumps"	1563
14.	A.L. CHANDRAKER "A numerical method for the computation of profile loss of turbine blades"	1575
15.	D.H. PELLETIER "A turbulence model for finite element simulation of 3-D turbulent flows near propellers and windmills"	1586
16.	F. THIELE and E. ELSHOLZ "An inverse method for compressible boundary layer flows"	1599

SECTION 10 BOUNDARY LAYERS

- | | | |
|----|--|------|
| 1. | P.W. CARPENTER and P.J. MORRIS
"The hydrodynamic stability of flows over
non-isotropic compliant surfaces - numerical
solution of the differential eigenvalue
problem" | 1613 |
| 2. | V. ESPERT, E. CABRERA and I. MARTINEZ
"Finite element algorithm for calculating
wind distribution in three-dimensional
atmospheric boundary layer" | 1621 |
| 3. | R. ABID, J. DELERY and R. SCHMITT
"An examination of turbulence models for
a separating three dimensional turbulent
boundary layer" | 1635 |
| 4. | A.N. MENENDEZ and B.R. RAMAPRIAN
"Wall functions for unsteady turbulent
boundary layers" | 1647 |
| 5. | F. MARTELLI and G. BINDINI
"Compressible boundary layer calculation by
finite element mixed approach" | 1659 |

SECTION 11 BOUNDARY GRIDDING TECHNIQUES AND METEOROLOGY

- | | | |
|----|--|------|
| 1. | C. GREENOUGH and P.J. EVERSON
"A two-level finite element model of the
general recirculation" | 1673 |
| 2. | J.Y. CANEILL, A. HAUGEL, R. DE LA BASTIDE
and D. SOUFFLAND
"Numerical simulation of atmospheric flows
over complex terrain" | 1687 |
| 3. | G. BERGELES
"Numerical calculation of turbulent flow
around 2D hills using orthogonal curvilinear
coordinate grid" | 1699 |

4. D.A. KOUREMENOS and K.A. ANTONOPOULOS 1709
"Numerical determination of relative humidity
and dry bulb temperature in Greece from
meteorological observations"
5. J. HÄUSER, H.G. PAAP and D. EPPEL 1721
"Boundary conformed coordinate systems for
fluid flow problems"
6. K. UMEGAKI and S. UCHIKAWA 1735
"Numerical simulation of two dimensional
incompressible viscous flow driven by rotating
boundaries using boundary fitted coordinate
system"
7. T. THEODOROPOULOS, G. BERGELES and 1747
N. ATHANASSIADIS
"Orthogonal grid generation in two dimensional
space"

SECTION 12 NUMERICAL AND MATHEMATICAL CONCEPTS

1. W.F. BLYTH 1761
"Walsh series solution of time evaluation
problems"
2. R. KEUNING 1763
"Mesh refinement analysis of the flow of a
Maxwell fluid through an abrupt contraction"
3. M. ROBICHAUD and P. TANGUY 1773
"Incomplete factorization in 3-D incompressible
fluid flow problems"
4. Q. RONG 1784
"Spline weighted residual method for viscous
flow problems"
5. L. KAITAI, M. ZHEN and Z. CHENGDIAN 1801
"The approximation of branch solution of the
Navier Stokes equations"
6. Y. JING-TANG 1812
"A computational model of turbulence"

7. R. YADAV 1821
"Analysis of flow through volute casings
of centrifugal machines by a singularity
method"
8. G.U. LEUINA and Y.A. BEREZIN 1833
"Numerical study of a secondary convective
motion at oscillating external forces"