

TABLE OF CONTENTS

I. STEADY GAS FLOW

G.S. Roslyakov and G.F. Telenin. SURVEY OF COMPUTATIONAL WORK ON STEADY AXISYMMETRIC GAS FLOW CARRIED OUT AT THE COMPUTATIONAL CENTER OF MOSCOW STATE UNIVERSITY . . .	1
L.A. Chudov and V.P. Kudryavtsev. ROUND-OFF ERRORS IN DIFFERENCE SOLUTIONS OF BOUNDARY-VALUE PROBLEMS FOR ELLIPTIC EQUATIONS AND SYSTEMS	12
U.G. Pirumov, V.A. Rubtsov, and V.N. Suvorova. CALCULATION OF AXISYMMETRIC EXHAUST NOZZLES WITH AN ALLOWANCE FOR EQUILIBRIUM PHYSICOCHEMICAL REACTIONS	33
G.S. Roslyakov and N.V. Drozdova. NUMERICAL COMPUTATION OF FLOW PAST A SCALARIFORM CONE	41
T.G. Volkonskaya. CALCULATION OF SUPERSONIC AXISYMMETRIC JETS	51

II. BOUNDARY LAYER

L.A. Chudov. REVIEW OF BOUNDARY-LAYER STUDIES CARRIED OUT AT THE COMPUTATIONAL CENTER OF MOSCOW STATE UNIVERSITY . . .	57
L.A. Chudov. SOME SHORTCOMINGS OF CLASSICAL BOUNDARY-LAYER THEORY	65
V.M. Paskonov. A STANDARD PROGRAM FOR THE SOLUTION OF BOUNDARY- LAYER PROBLEMS	74
V.M. Paskonov and I.P. Soprunenko. BOUNDARY LAYER ON SLIGHTLY WAVY WALL	80
V.M. Paskonov and Yu. V. Polezhaev. UNSTEADY MELTING OF VISCOUS MATERIAL NEAR STAGNATION POINT	85
T.S. Varzhanskaya, E.I. Obroskova, and E.N. Starova. BOUNDARY LAYER NEAR THE CRITICAL POINT	94

B.M. Budak, T.F. Bulatskaya, and F.P. Vasil'ev. NUMERICAL SOLUTION OF A BOUNDARY-VALUE PROBLEM FOR THE SYSTEM OF NON- LINEAR INTEGRO-DIFFERENTIAL EQUATIONS OF A HYPERSONIC BOUNDARY LAYER 102
---	-------

III. VISCOUS FLOW

A.L. Krylov. FINITE-DIMENSIONAL MODELS FOR EQUATIONS OF MATHEMATICAL PHYSICS 114
A.L. Krylov and E.K. Proizvolova. NUMERICAL STUDY OF FLOW BETWEEN ROTATING CYLINDERS 121
A.L. Krylov and A.F. Misnik. STABILITY OF VISCOUS FLOW BETWEEN TWO ROTATING CYLINDERS 127
L.A. Chudov and T.V. Kuskova. APPLICATION OF DIFFERENCE SCHEMES TO COMPUTATION OF NONSTATIONARY FLOW OF VISCOUS INCOMPRESSIBLE FLUID 132

IV. SEEPAGE PROBLEMS

B.M. Budak and F.P. Vasil'ev. CONVERGENCE AND ERROR ESTIMATES IN THE RAY METHOD FOR THE SOLUTION OF SOME SEEPAGE PROBLEMS 145
EXPLANATORY LIST OF ABBREVIATED NAMES OF INSTITUTIONS AND PERIODICALS APPEARING IN THIS BOOK 166