

## JOURNAL OF APPLIED MATHEMATICS AND MECHANICS CONTENTS OF NEXT ISSUE

Volume 63, No. 3, 1999

- L. V. Ovsyannikov—80th Birthday
- L. V. OVSYANNIKOV: Some results of the programme "SUBMODELS" realized for gas dynamic equations
- V. K. ANDREYEV and A. A. RODIONOV: Invariant solutions of rank two of the equations describing rotationally symmetric motions of inhomogeneous fluid
- H. V. POPOVICH and R. O. POPOVICH: The incompressible fluid flow with linear vorticity
- G. G. DENISOV: The wave momentum, radiation pressure and other quantities in the plane motion of an ideal gas
- A. I. RYLOV: Asymptotic forms and level line structure in subsonic plane potential flows
- S. P. BAUTIN: The asymptotic laws of the shockless powerful compression of the quasi-one-dimensional gaseous layers
- A. I. BASHKIRTSEVA: Analytical method for solving the problem of shockless conic compression of a gas
- V. A. KUKUSHKIN: The two-dimensional interaction of Riemann compression waves
- M. Sh. SHAVALIYEV: Analysis of weak shock-wave structure and propagation of small-amplitude disturbances in gas mixtures using Barnett equations
- S. I. CHERNYSHENKO: Non-linear development of rotating stall in an axial flow compressor at near-critical flow rate
- Kh. V. OGANESYAN and A. M. TER-KRIKOROV: Instability of steady-state flows generated by a vortex thread in a stratified gas
- V. I. GRABOSVSKII and A. N. KRAIKO: Optimum design of infinite journal bearing with a minimum friction moment
- A. G. PETROV: Instability of equilibrium of a sphere in a potential non-uniform flow
- A. V. MARCHENKO: Modes of wave-induced motion of a floating body
- I. Ye. ANUFRIYEVA and L. V. PETUKHOV: Construction of the boundary analogues of variational methods for approximation of the weak solution of elasticity problems
- A. S. KRAVCHUK: The thomograph algorithm in the theory of elasticity
- A. G. KOLPAKOV: Constitutive equations for a thin elastic stressed beam of periodic structure
- S. A. BERETSOVA and Ye. A. MITYUSHOV: The exact solution of the problem of determination of effective elastic modules of micro inhomogeneous media