

CONTENTS

VOLUME 41

NUMBER 1

2006

MECHANICS OF SOLIDS

| | Russian page | English page |
|---|-----------------|-----------------|
| Indentation of an axially symmetric punch into a layer inhomogeneous with respect to depth. V. V. Klindukhov | 5 | 1 |
| Adhesive indentation of a smooth punch into an elastic half-plane in the presence of an additional external load. I. A. Soldatenkov | 10 | 5 |
| Geometric theory of elasticity and shape optimization for solids. V. V. Vasil'ev and L. V. Fedorov | 16 | 10 |
| Transient dynamic contact problem of elasticity for an impact of a parabolic punch against an elastic half-plane. V. B. Zelentsov | 28 | 20 |
| The Prandtl problem for a plastic layer weakly inhomogeneous with respect to the yield strength. D. V. Georgievskii | 47 | 35 |
| On the constitutive relations of nonlinear viscoelasticity for a polar medium with structural changes being taken into account. S. E. Omarov and B. E. Pobedrya | 60 | 46 |
| Accretion of a viscoelastic ball in a centrally symmetric force field. A. V. Manzhirov and D. A. Parshin | 66 | 51 |
| Variational approaches in the beam theory. G. V. Kostin and V. V. Saurin | 84 | 65 |
| A method for numerical solution of complete singular integral equations with complex power-law singularities. A. V. Andreev | 99 | 76 |
| Longitudinal crack in an orthotropic elastic strip with free faces. V. M. Alexandrov | 115 | 88 |
| The influence of dislocations on the criterion of crack growth on the cohesion interface between deformable materials. R. V. Goldstein and M. E. Sarychev | 125 | 95 |
| Stress-strain state analysis for an incompressible half-space with a near-surface wedge-shaped crack. A. V. Loveikin and A. F. Ulitko | 136 | 104 |
| On the reconstruction of plane cracks in an elastic heat-conducting solid with the interaction of crack surfaces being taken into account. A. O. Vatul'yan and A. N. Solov'ev | 149 | 114 |
| Control of chaotic vibrations in flexible spherical shells. V. A. Krysk'o and I. V. Kravtsova | 160 | 124 |
| Motion of a rigid body in an acoustic medium driven by a time-dependent spherical pressure wave. A. G. Gorshkov, S. I. Zhavoronok, A. L. Medvedskii, and L. N. Rabinskii .. | 173 | 135 |