

Contents

Volume 236, 2002

To the 80th Anniversary of E.F. Mishchenko	1
Existence of Global Weak Solutions to the Equations of One-Dimensional Nonlinear Thermoviscoelasticity with Discontinuous Data	
<i>A. A. Amosov</i>	3
Flows on Closed Surfaces and Related Geometrical Questions	
<i>D. V. Anosov</i>	12
Invariant Manifolds in Singularly Perturbed Systems	
<i>O. D. Anosova</i>	19
Necessary Extremum Conditions and an Inverse Function Theorem without a priori Normality Assumptions	
<i>A. V. Arutyunov</i>	25
Bifurcation of the Equilibrium Point in the Critical Case of Two Pairs of Zero Characteristic Roots	
<i>V. V. Basov</i>	37
Multiplicity of Zeros of the Components of Solutions to a System with Regular Singular Points	
<i>A. A. Bolibruch</i>	53
On Morse–Smale Diffeomorphisms without Heteroclinic Intersections on Three-Manifolds	
<i>C. Bonatti, V. Z. Grines, V. S. Medvedev, and E. Pécou</i>	58
On a Model Analogue of the Helmholtz Resonator in Homogenization	
<i>R. R. Gadyl'shin</i>	70
On the Defining Boundary Conditions of Elliptic Boundary Value Problems with a Small Parameter at the Highest Derivatives	
<i>S. A. Golopuz</i>	78
On Bifurcations of Two-Dimensional Diffeomorphisms with a Homoclinic Tangency of Manifolds of a “Neutral” Saddle	
<i>V. S. Gonchenko</i>	86
Homoclinic Tangencies, Ω -Moduli, and Bifurcations	
<i>S. V. Gonchenko</i>	94
Locally Bounded Generalized Entropy Solutions to the Cauchy Problem for a First-Order Quasilinear Equation	
<i>A. Yu. Goritsky and E. Yu. Panov</i>	110
Singularities of Limiting Directions of Generic Higher Order Implicit ODEs	
<i>A. A. Davydov</i>	124
On the Boundary Properties of Solutions to the Generalized Cauchy–Riemann Equation	
<i>E. P. Dolzhenko and V. I. Danchenko</i>	132
On Nonisolated Singular Points of Solutions to Linear Elliptic Equations with Constant Coefficients	
<i>E. P. Dolzhenko and A. V. Pokrovskii</i>	143
On Eigenvibrations of a Body with Many Concentrated Masses Located Nonperiodically along the Boundary	
<i>E. I. Doronina and G. A. Chechkin</i>	148

Ω -Stable Skew Products of Interval Maps Are Not Dense in $T^1(I)$	
<i>L. S. Efremova</i>	157
The Structure of Optimal Synthesis in the Vicinity of Singular Manifolds for Problems Affine with Respect to Control	
<i>M. I. Zelikin</i>	164
First Integrals of Lorentz Equations for Certain Classes of Electromagnetic Fields	
<i>A. S. Ivanova and M. A. Parinov</i>	186
Continuity at a Point for Solutions to Elliptic Equations with a Nonstandard Growth Condition	
<i>O. V. Krasheninnikova</i>	193
On the Realization of Morse–Smale Diffeomorphisms with Heteroclinic Curves on a 3-Sphere	
<i>E. V. Kruglov and E. A. Talanova</i>	201
Doubling Operations and Monodromy of Generalized Knizhnik–Zamolodchikov Equations	
<i>V. P. Leksin</i>	206
Suboptimal Regimes in the Fuller Problem	
<i>O. E. Maykova</i>	214
A Saddle Point in a Differential Game on an Unbounded Time Interval	
<i>N. B. Mel’nikov</i>	218
Arbitrary Plane Systems of Anisotropic Beams	
<i>S. A. Nazarov and A. S. Slutskij</i>	222
Shrödinger Operators with Singular Potentials	
<i>M. I. Neiman-zade, A. M. Savchuk</i>	250
On the Asymptotics of the Green Functions for Parabolic Equations	
<i>M. M. Postnikov</i>	260
A General Approach to the Theory of Nonexistence of Global Solutions to Nonlinear Partial Differential Equations and Inequalities	
<i>S. I. Pohozaev</i>	273
A Nonlocal Problem for a Loaded Hyperbolic Equation	
<i>L. S. Pul’kina</i>	285
Three-Dimensional Domains of Parametric Resonance	
<i>A. P. Seyranian and A. A. Mailybaev</i>	291
On the Uniqueness Problem for Nonlinear Elliptic and Parabolic Equations	
<i>I. V. Skrypnik and H. Gajewski</i>	305
On the Global Geometry of Harmonic Symmetric Bilinear Differential Forms	
<i>M. V. Smolnikova</i>	315
On Jost-Type Solutions to Quasilinear Equations with Power Nonlinearity	
<i>S. A. Stepin</i>	319
Finite-Dimensional Subalgebras of the Lie Algebra of Vector Fields on the Circle	
<i>M. S. Strigunova</i>	325
Generalized Admissibility, Well-Definedness, and Invertibility of Linear Partial Differential Operators	
<i>V. M. Tyurin</i>	330
On Weighted Korn’s Inequality for a Thin Nonsymmetric Plate	
<i>G. A. Chechkin and E. A. Pichugina (Akimova)</i>	334
Localized Boundary Blow-up Regimes for General Quasilinear Divergent Parabolic Equations of Arbitrary Order	
<i>A. E. Shishkov</i>	341

Homogenization of Nonlinear Variational Problems by Means of Two-Scale Convergence <i>S. B. Shul'ga</i>	357
Nonstandard Variational Problems in Mathematical Statistics <i>A. M. Shurygin</i>	365
Interactions between Homogenization and Phase-Transition Processes <i>N. Ansini, A. Braides, and V. Chiadò Piat</i>	373
Projection Singularities of Extremals and Morse Property for Minimum Time <i>U. Boscaïn</i>	386
The Passage from Nonconvex Discrete Systems to Variational Problems in Sobolev Spaces: The One-Dimensional Case <i>A. Braides, M. Gelli, and M. Sigalotti</i>	395
Invariant Manifolds Revisited <i>M. Chaperon</i>	415
On the Asymptotic Behavior of Solutions of a Semilinear Elliptic Boundary Problem in Unbounded Domains <i>Yu. V. Egorov and V. A. Kondratiev</i>	434
Multiple Equilibria in an Optimal Control Model for Law Enforcement <i>G. Feichtinger and G. Tragler</i>	449
Tauberian Theorems for Cosine Operator Functions <i>B. Jefferies and S. Piskarev</i>	461
Fuchsian Systems with Reducible Monodromy Are Meromorphically Equivalent to Reducible Fuchsian Systems <i>S. Malek</i>	468
Discrete Models of Codimension-Two Singularities of Goursat Flags of Arbitrary Length with One Flag's Member in Singular Position <i>P. Mormul</i>	478
Harnack Inequalities on Recurrent Metric Fractals <i>U. Mosco</i>	490
On the Dynamics of Nonholonomic Systems <i>R. Ramirez and N. Sadovskaia</i>	496
On the 16th Hilbert Problem <i>N. Sadovskaia and R. Ramirez</i>	506
