Contents

Vol. 39, No. 2, 2003
Simultaneous English language translation of the journal is available from MAIK "Nauka/Interperiodica" (Russia). Distributed worldwide by Kluwer Academic/Plenum Publishers. *Differential Equations* ISSN 0012-2661.

Ordinary Differential Equations

The Center-Focus Problem for a System with Homogeneous Nonlinearities in the Case of Zero Eigenvalues of the Linear Part
A. F. Andreev, A. P. Sadovskii, and V. A. Tsikalyuk 155

A Generalized Normal Form and Formal Equivalence of Systems of Differential Equations with Zero Characteristic Numbers
V. V. Basov 165

An Orr–Sommerfeld Equation with a First-Order Differential Turning Point
V. N. Bobochko 182

Frequency Conditions in Controller Design for Dynamical Systems in Hilbert Spaces
V. A. Brusin and M. M. Kogan 192

On the Continuous Dependence of an Almost Periodic Solution of a Nonlinear Control System on a Parameter
A. G. Ivanov 199

On Boundary Value Problems for Linear Differential Systems with Singularities
I. T. Kiguradze 212

Existence Theorems for Viable Solutions of Stochastic Differential Equations
A. A. Levakov 226

Sufficient Conditions for the Local Proportional Controllability of Lyapunov Exponents of Linear Systems
E. K. Makarov and S. N. Popova 234

Sufficient and Necessary Conditions for the Stable Controllability of a Nonlinear Nonstationary System on the Plane in the Critical Case
Yu. V. Masterkov and L. I. Rodina 246

Application of the Boundary Function Method to Finding Slow Periodic Solutions of Singularly Perturbed Bang-Bang Systems
L. M. Fridman 256

Necessary Conditions for the Existence of Global Solutions of Systems of Higher-Order Nonlinear Ordinary Differential Equations and Inequalities
Dzh. Khei 267

Finite-Difference Equations

Synthesis of Nilpotent Two-Parameter Discrete Systems Over a Commutative Ring
I. V. Gaishun 275

Distinguishability Conditions for Stationary Linear Systems
A. A. Lomov 283

Necessary Cone Optimality Conditions for Trajectories of Discrete Inclusions
N. N. Rachkovskii 289

Short Communications

On the Dirichlet Problem for a Multidimensional Analog of the Bitsadze System
V. E. Balabaev 301

Problems Without Initial Conditions for a Nonclassical Equation
G. O. Vafodorova 304

On Periodic Solutions of a Lyapunov Type Equation
L. A. Danilovich and V. N. Laptinskii 307

Chronicle

Letter to the Editorial Board 311