

# SIBERIAN MATHEMATICAL JOURNAL

A translation of *Sibirskii Matematicheskii Zhurnal*

Volume 48, Number 1

January–February, 2007

## CONTENTS

Engl./Russ.

|                                                                                                                                                               |     |     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|
| <b>S. S. Kutateladze</b> , <i>Kantorovich's Phenomenon</i> .....                                                                                              | 1   | 3   |
| <b>M. G. Amaglobeli</b> , <i>Algebraic Sets and Coordinate Groups for a Free Nilpotent Group of Nilpotency Class 2</i> .....                                  | 3   | 5   |
| <b>Ya. V. Bazaikin</b> , <i>On the New Examples of Complete Noncompact Spin(7)-Holonomy Metrics</i> .....                                                     | 8   | 11  |
| <b>A. V. Borisov and I. S. Mamaev</b> , <i>Isomorphism and Hamilton Representation of Some Nonholonomic Systems</i> .....                                     | 26  | 33  |
| <b>S. K. Vodop'yanov and D. V. Isangulova</b> , <i>Differentiability of the Mappings of Carnot–Carathéodory Spaces in the Sobolev and BV-Topologies</i> ..... | 37  | 46  |
| <b>A. V. Gavrilov</b> , <i>The Double Exponential Map and Covariant Derivation</i> .....                                                                      | 56  | 68  |
| <b>V. M. Gichev and E. A. Meshcheryakov</b> , <i>On Geometry of Flat Complete Strictly Causal Lorentzian Manifolds</i> .....                                  | 62  | 75  |
| <b>M. A. Grechkoseeva</b> , <i>On Difference Between the Spectra of the Simple Groups <math>B_n(q)</math> and <math>C_n(q)</math></i> .....                   | 73  | 89  |
| <b>S. E. Zhelezovskii</b> , <i>Study of Convergence of the Projection-Difference Method for Hyperbolic Equations</i> .....                                    | 76  | 93  |
| <b>M. A. Ignat'eva and A. P. Chupakhin</b> , <i>Integration of the Equations of Gas Dynamics for 2.5-Dimensional Solutions</i> .....                          | 84  | 103 |
| <b>N. Yu. Makarenko</b> , <i>Graded Lie Algebras with Few Nontrivial Components</i> .....                                                                     | 95  | 116 |
| <b>S. P. Odintsov</b> , <i>On Extensions of Nelson's Logic Satisfying Dummett's Axiom</i> .....                                                               | 112 | 138 |
| <b>A. A. Perflyev</b> , <i>Solution of the Problem of Describing Minimal Seifert Manifolds</i> ...                                                            | 126 | 156 |
| <b>A. S. Romanov</b> , <i>On the Traces of Sobolev Functions on the Boundary of a Cusp with a Hölder Singularity</i> .....                                    | 142 | 176 |
| <b>V. G. Safonov</b> , <i>Characterization of the Soluble One-Generated Totally Saturated Formations of Finite Groups</i> .....                               | 150 | 185 |
| <b>M. V. Semenova</b> , <i>On Lattices Embeddable into Subsemigroup Lattices. III: Nilpotent Semigroups</i> .....                                             | 156 | 192 |
| <b>S. V. Sudoplatov</b> , <i>Powerful Digraphs</i> .....                                                                                                      | 165 | 205 |
| <b>N. G. Khisamiev</b> , <i>On Constructive Nilpotent Groups</i> .....                                                                                        | 172 | 214 |

|                                                                                   |     |     |
|-----------------------------------------------------------------------------------|-----|-----|
| <b>B. Hu and W. Guo,</b> <i>c-Semipermutable Subgroups of Finite Groups</i> ..... | 180 | 224 |
| <b>P. V. Chernikov,</b> <i>On Two Questions of the Theory of Retracts</i> .....   | 189 | 236 |

*Siberian Mathematical Journal* is abstracted or indexed in CompuMath Citation Index, SCOPUS, ISI Alerting Services, Science Citation Index Expanded.