Recent volumes in MSJ Memoirs

| 1 | Ivan Cherednik, Peter J. Forrester and Denis Uglov, Quantum many-body problems and representation theory, 1998 | | | | |
|----|---|----------------------|--|--|--|
| 2 | Masako Takahashi, Mitsuhiro Okada and Mariangiola Dezani-Ciancaglini (Eds.), Theories of types and proofs, 1998 | | | | |
| 3 | Tomotada Ohtsuki, Combinatorial quantum method in 3-dimensional topology, 1999 | JPY5800 JPY2000 | | | |
| 4 | Atsushi Matsuo and Kiyokazu Nagatomo, Axioms for a vertex algebra and the locality of quantum fields, 1999 | | | | |
| 5 | Daryl Cooper, Craig D. Hodgson and Steven P. Kerckhoff, Three-dimensional orbifolds and cone-manifolds, 2000 | | | | |
| 6 | Kong De-xing, Cauchy problem for quasilinear hyperbolic systems, 2000 | JPY4000 | | | |
| 7 | Vladimir Georgiev, Semilinear hyperbolic equations, 2000 | JPY4000 | | | |
| 8 | Eric M. Opdam, Lecture notes on Dunkl operators for real and complex reflection groups, 2000 | JPY1500 | | | |
| 9 | Peter Orlik and Hiroaki Terao, Arrangements and hyper-geometric integrals, 2001 | JPY1900 | | | |
| 10 | Yuri G. Prokhorov, Lectures on complements on log surfaces, 2001 | JPY2500 | | | |
| 11 | John R. Stembridge, Jean-Yves Thibon, Marc A. A. van Leeuwen, Interaction of combinatorics and representation theory, 2001 | JPY2400 | | | |
| 12 | Yves André, Period mappings and differential equations. From \mathbb{C} to \mathbb{C}_p , 2003 | JPY4500 | | | |
| 13 | Shigeaki Koike, A beginner's guide to the theory of viscosity solutions, 2004 | JPY2191 | | | |
| 14 | Noboru Nakayama, Zariski-decomposition and Abundance, 2004 | JPY4286 | | | |
| 15 | Valery Alexeev and Viacheslav V. Nikulin, Del Pezzo and K3 surfaces, 2006 | JPY2857 | | | |
| 16 | Brian H. Bowditch, A course on geometric group theory, 2006 | JPY1524 | | | |
| 17 | Arkady Berenstein, David Kazhdan, Cédric Lecouvey, Masato Okado, Anne Schilling, Taichiro Takagi and Alexander Veselov, Combinatorial Aspect of Integrable Systems, 2007 | JPY2286 | | | |
| 18 | Yasutaka Ihara, On Congruence Monodromy Problems, 2008 | JPY 2280 JPY 2667 | | | |
| 19 | Joseph Najnudel, Bernard Roynette and Marc Yor, A Global | 01 12001 | | | |
| 20 | View of Brownian Penalisations, 2009 | JPY1733 | | | |

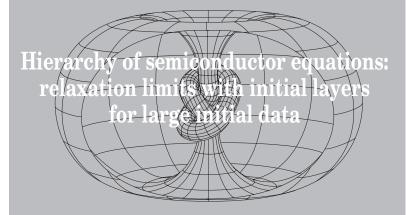
| 20 | Danny Calegari, scl(Stable Commutator Length), 2009 | JPY3095 |
|----|--|---------|
| 21 | Gautami Bhowmik, Kohji Matsumoto and Hirofumi Tsumura (Eds.), Algebraic and Analytic Aspects of Zeta Functions and L-functions, 2010 | JPY2781 |
| 22 | Michael Ruzhansky and James Smith, Dispersive and Strichartz estimates for hyperbolic equations with constant coefficients, 2010 | JPY2352 |
| 23 | Armen Sergeev, Kähler geometry of loop spaces, 2010 | JPY3124 |
| 24 | Taro Asuke, Godbillon-Vey class of transversely holomorphic foliations, 2010 | JPY2114 |
| 25 | Hiroshi Sugita, Monte Carlo method, random number, and pseudorandom number, 2011 | JPY2333 |
| 26 | Shinya Nishibata and Masahiro Suzuki, Hierarchy of semiconductor equations: relaxation limits with initial layers for large initial data, 2011 | JPY1952 |

Hierarchy of semiconductor equations: relaxation limits with initial layers for large initial data

Shinya Nishibata and Masahiro Suzuki Department of Mathematical and Computing Sciences, Tokyo Institute of Technology, Tokyo 152-8552, Japan

MSJ Memoirs

Mathematical Society of Japan



Shinya Nishibata and Masahiro Suzuki



Shinya Nishibata Professor Department of Mathematical and Computing Sciences Tokyo Institute of Technology 2-12-1-W8-32, O-okayama, Meguro-ku Tokyo, 152-8552, Japan E-mail:shinya@is.titech.ac.jp

Masahiro Suzuki
Assistant Professor
Department of Mathematical and Computing Sciences
Tokyo Institute of Technology
2-12-1-W8-32, O-okayama, Meguro-ku
Tokyo, 152-8552, Japan
E-mail:masahiro@is.titech.ac.jp

2010 Mathematics Subject Classification:Primary 82D37, 76E99, 76N99; Secondary 35L50, 35K15, 35J05

MSJ Memoirs

This monograph series is intended to publish lecture notes, graduate textbooks and long research papers* in pure and applied mathematics. Each volume should be an integrated monograph. Proceedings of conferences or collections of independent papers are not accepted.

Articles for the series can be submitted to one of the editors in the form of hard copy. When the article is accepted, the author(s) is (are) requested to send a camera-ready manuscript.

* limited to contributions by MSJ members

Editorial Board

Ariki, Susumu Furuta, Mikio Hayashi, Nakao Kaneko, Masanobu Kojima, Sadayoshi Kuniba, Atsuo Miyaoka, Yoichi Namikawa, Yoshinori Noguchi, Junjiro Ochiai, Hiroyuki Okamoto, Hisashi Takayama, Nobuki Taniguchi, Setsuo (Chief Editor/Managing Editor) Yamaguchi, Takao Yanagida, Eiji Yoshida, Nakahiro

The series MSJ Memoirs is occasionally (3–5 volumes each year) published by the Mathematical Society of Japan. The titles and prices of recent volumes are listed on page i of this volume. Each volume of the series can be separately purchased by placing an order with:

- The Mathematical Society of Japan, 1–34–8 Taito, Taito-ku, 110-0016 Tokyo, Japan (from inside Japan)
- World Scientific Publishing, 5 Thoh Tuck Link, Singapore 596224 (from ouside Japan)
- © 2011 by the Mathematical Society of Japan. All rights reserved.