Yurinsha Book News

University Lecture Series,

Vol. 53: **Morgan, J. /Fong, F.:** 442-123

Ricci Flow and Geometrization of 3-Manifolds

This book is based on lectures given at Stanford University in 2009.
The purpose of the lectures and of the book is to give an introductory overview of how to use Ricci flow and Ricci flow with surgery to establish the Poincare Conjecture and the more general Geometrization Conjecture for 3-dimensional manifolds.
Most of the material is geometric and analytic in nature; a crucial ingredient is understanding singularity development for 3-dimensional Ricci flows and for 3-dimensional Ricci flows with surgery.
This understanding is crucial for extending Ricci flows with surgery so that they are defined for all positive time.
Once this result is in place, one must study the nature of the time-slices as the time goes to infinity in order to deduce the topological consequences.

May 2010 150 pp.
9780821849637 5,620.

Mathematical Surveys and Monographs, 442-141

Vol. 163: **Chow, B. /Chu, S.-C. /Glickenstein, D. /Guenther, C. / Isenberg, J. /Ivey, T. /Knopf, D. /Lu, P. /Luo, F. /Ni, L.:**

The Ricci Flow:
Techniques and Applications, Part III: Geometric-Analytic Aspects

June 2010 525 pp. 9780821846612 15,480.

A. M. S.

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No. 442 Apr. 2010

数理科学 友隣社 洋書専門

目　次

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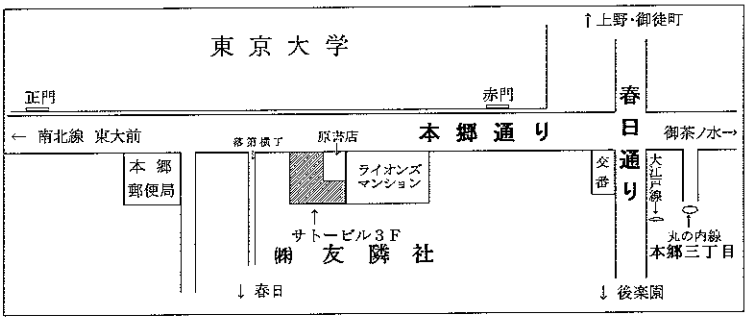

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Graduate Studies in Mathematics,

442-099

Vol. 19: **Evans, L.:**
Partial Differential Equations, 2nd ed.

This is the second edition of the now definitive text on partial differential equations (PDE).
It offers a comprehensive survey of modern techniques in the theoretical study of PDE with particular emphasis on nonlinear equations.
Its wide scope and clear exposition make it a great text for a graduate course in PDE.
For this edition, the author has made numerous changes, including * a new chapter on nonlinear wave equations, * more than 80 new exercises, * several new sections, *a significantly expanded bibliography.
"I use Partial Differential Equations to prepare my students for their Topic exam, which is a requirement before starting working on their dissertation. The book provides an excellent account of PDE's ... I am very happy with the preparation it provides my students. — Carlos Kenig, Univ. of Chicago"

Apr. 2010 **749 pp.**
9780821849743 **12,740.**

442-017

Vol. 115: **Gonzalez-Diaz, J. / Garcia-Jurado, I. /Fiestras-Janeiro, G.:**
An Introductory Course on Mathematical Game Theory

This book presents an introductory and up-to-date course on game theory addressed to mathematicians and economists, and to other scientists having a basic mathematical background. The book is self-contained, providing a formal description of the classic game-theoretic concepts together with rigorous proofs of the main results in the field. The basic concepts and results of game theory are given a formal treatment, and the mathematical tools necessary to develop them are carefully presented.

June 2010 **324 pp.**
9780821851517 **8,490.**

Contemporary Mathematics,

Vol. 513: **Leizarowitz, A. /Mordukhovich, B. et al. (eds.):**
Nonlinear Analysis and Optimizztion I: Nonlinear Analysis

This volume is the first of two volumes representing leading themes of current research in nonlinear analysis and optimization.
The articles are written by prominent researchers in these two areas and bring the readers, advanced graduate students and researchers alike, to the frontline of the vigorous research in these important fields of mathematics.
This volume contains articles on nonlinear analysis.
Topics covered include the convex feasibility problem, fixed point theory, mathematical biology, Mosco stability, nonexpansive mapping theory, nonlinear partial differential equations, optimal control, the proximal point algorithm and semigroup theory.

442-115

June 2010 **276 pp.**
9780821848340 **12,190.**

Vol. 514: **Leizarowitz, A. /Shafrir, I. /Zaslavski, A. (eds.):**
Nonlinear Analysis and Optimizztion II: Optimization

June 2010 **298 pp.** 442-116
9780821848357 **12,190.**

A. M. S.

Student Mathematical Library,

Vol. 53: **Matousek, J.:** 442-036

Thirty-three Miniatures:
Mathematical & Algorithmic Applications of Linear Algebra

This volume contains a collection of clever mathematical applications of linear algebra, mainly in combinatorics, geometry, and algorithms.
Each chapter covers a single main result with motivation and full proof in at most ten pages and can be read independently of all other chapters (with minor exceptions), assuming only a modest background in linear algebra.
The topics include a number of well-known mathematical gems, such as Hamming codes, the matrix-tree theorem, the Lovasz bound on the Shannon capacity, and a counterexample to Borsuk's conjecture, as well as other, perhaps less popular but similarly beautiful results, e.g., fast associativity testing, a lemma of Steinitz on ordering vectors, a monotonicity result for integer partitions, or a bound for set pairs via exterior products.

June 2010 171 pp.
9780821849774 4,930.

CRM Proceedings and Lecture Notes,

Vol. 51: **Mashreghi, J. /Ransford, T. /Seip, K. (eds.):**

Hilbert Spaces of Analytic Functions

Hilbert spaces of analytic functions are currently a very active field of complex analysis. The Hardy space is the most senior member of this family. However, other classes of analytic functions such as the classical Bergman space, the Dirichlet space, the de Branges-Rovnyak spaces, and various spaces of entire functions, have been extensively studied.
These spaces have been exploited in different fields of mathematics and also in physics and engineering.
For example, de Branges used them to solve the Bieberbach conjecture.
Modern control theory is another place that heavily exploits the techniques of analytic function theory. 442-030
This book grew out of a workshop held in December 2008 at the CRM in Montreal and provides an account of the latest developments in the field of analytic function theory.

May 2010 214 pp.
9780821848791 13,560.

Vol. 50: **Kotiuga, P. (ed.):** 442-027

A Celebration of the Mathematical Legacy of Raoul Bott

The conference was co-organized by the Clay Mathematics Institute and had support from the National Science Foundation (Award 0805925).
Montreal was a natural venue for such an event since Raoul Bott obtained two degrees in Electrical Engineering at McGill University in the 1940s and an Honorary Doctorate from McGill in 1987.
The fact that Bott's presence is still fresh in the minds of all those involved made for a tremendous amount of enthusiasm and every attempt has been made to channel this energy into this book.
The contributions to this book come from three generations of Bott's students, coauthors, and fellow kindred spirits in order to cover six decades of Bott's research, identify his enduring mathematical legacy, and the consequences for emerging fields.

May 2010 403 pp.
9780821847770 17,120.

A. M. S.

Cambridge Tracts in Mathematics,

Vol. 183: **Dat, J.-F. /Orlik, S. /Rapoport, M.:** 442-062
Period Domains over Finite and *p*-adic Fields

This book is, on the one hand, a pedagogical introduction to the formalism of slopes, of semi-stability and of related concepts in the simplest possible context.
It is therefore accessible to any graduate student with a basic knowledge in algebraic geometry and algebraic groups.
On the other hand, the book also provides a thorough introduction to the basics of period domains, as they appear in the geometric approach to local Langlands correspondences and in the recent conjectural p-adic local Langlands program.

Aug. 2010 400 pp.
9780521197694 13,070.

Cambridge Studies in Advanced Mathematics,

Vol. 127: **de Faria, E. /de Molo, W.:** 442-082
Mathematical Aspects of Quantum Field Theory

Over the last century quantum field theory has made a significant impact on the formulation and solution of mathematical problems and inspired powerful advances in pure mathematics.
However, most accounts are written by physicists, and mathematicians struggle to find clear definitions and statements of the concepts involved.
This graduate-level introduction presents the basic ideas and tools from quantum field theory to a mathematical audience.
Topics include classical and quantum mechanics, classical field theory, quantization of classical fields, perturbative quantum field theory, renormalization, and the standard model.
The material is also accessible to physicists seeking a better understanding of the mathematical background, providing the necessary tools from differential geometry on such topics as connections and gauge fields, vector and spinor bundles, symmetries and group representations.

July 2010 300 pp.
9780521115773 7,920.

Vol. 126: **Beals, R. /Wong, R.:** 442-056
Special Functions: A Graduate Text

The subject of special functions is often presented as a collection of disparate results, which are rarely organised in a coherent way.
This book answers the need for a different approach to the subject.
The authors' main goals are to emphasise general unifying principles coherently and to provide clear motivation, efficient proofs, and original references for all of the principal results.
The book covers standard material, but also much more, including chapters on discrete orthogonal polynomials and elliptic functions.
The authors show how a very large part of the subject traces back to two equations - the hypergeometric equation and the confluent hypergeometric equation - and describe the various ways in which these equations are canonical and special.
Providing ready access to theory and formulas, this book serves as an ideal graduate-level textbook as well as a convenient reference.

Sep. 2010 450 pp.
9780521197977 8,580.

Cambridge

Encyclopedia of Mathematics and Its Applications,

Vol. 74: Lasiecka, I. /Triggiani, R.: (Now in Paperback ed.)
Control Theory for Partial Differential Equations:
Continuous and Approximation Theories Vol.1:
Abstract Parabolic Systems 442-113

This is the first volume of a comprehensive and up-to-date treatment of quadratic optimal control theory for partial differential equations over a finite or infinite time horizon, and related differential (integral) and algebraic Riccati equations.
Volume I includes the abstract parabolic theory (continuous theory and numerical approximation theory) for the finite and infinite cases and corresponding PDE illustrations, and presents numerous new results.
These volumes will appeal to graduate students and researchers in pure and applied mathematics and theoretical engineering with an interest in optimal control problems.

Sep. 2011 670 pp.
9780521155670 7,920.

Vol. 75: Lasiecka, I. /Triggiani, R.: (Now in Paperback ed.)
Control Theory for Partial Differential Equations:
Continuous and Approximation Theories, Vol. 2:
Abstract Hyperbolic-like Systems over a Finite Time Horizon

Volume II focuses on the optimal control problem over a finite time interval for hyperbolic dynamical systems.
The chapters consider some abstract models, each motivated by a particular canonical hyperbolic dynamics, and present numerous new results.

Sep. 2011 649 pp. 442-114
9780521155687 7,920.

Cambridge Monographs on Mathematical Physics

de Felice, F. /Bini, D.: 442-043
Classical Measurements in Curved Space-Times

The theory of relativity describes the laws of physics in a given space-time. However, a physical theory must provide observational predictions expressed in terms of measurements, which are the outcome of practical experiments and observations.
Ideal for readers with a mathematical background and a basic knowledge of relativity, this book will help readers understand the physics behind the mathematical formalism of the theory of relativity.

Aug. 2010 256 pp.
9780521889308 16,500.

van Dongan, J.: 442-046
Einstein's Unification

Why did Einstein tirelessly study unified field theory for more than 30 years? In this book, the author argues that Einstein believed he could find a unified theory of all of nature's forces by repeating the methods he used when he formulated general relativity.
The book discusses Einstein's route to the general theory of relativity, focusing on the philosophical lessons that he learnt.
It then addresses his quest for a unified theory for electromagnetism and gravity, discussing in detail his efforts with Kaluza-Klein and, surprisingly, the theory of spinors.

July 2010 232 pp.
9780521883467 11,220.

Cambridge

Brooks, S. /Gelman, A. /Jones, G. /Meng, X.-L. (eds.):
Handbook of Markov Chain Monte Carlo

This handbook brings together the major advances that have occurred in recent years while incorporating enough introductory material for new users of MCMC.
Along with thorough coverage of the theoretical foundations and algorithmic and computational methodology, the book includes substantial realistic case studies from a variety of disciplines.

Oct. 2010 800 pp. 442-005
9781420079418 13,950.

Cooperstein, B.: 442-061
Advanced Linear Algebra

Designed to meet the requirements of a second course in linear algebra or a beginning graduate course, this book starts with familiar topics and builds to deeper results.
Each section begins with definitions and results and offers extensive exercises with hints and selected solutions.
The material adds motivation by referring to other fields of mathematics, such as functional analysis, representation of groups and algebras, field theory, and Lie algebras. Additionally, the text defines and proves the existence of tensor products and delves into the symmetric and exterior algebras.

June 2010 360 pp.
9781439829660 10,900.

Monographs & Surveys in Pure and Applied Mathematics,

Sharma, V.: 442-131
Quasilinear Hyperbolic Systems,
Compressible Flows, and Waves

A self-contained discussion of quasilinear hyperbolic PDEs and systems, this book includes carefully chosen physical examples in gas dynamics and shallow water theory. It introduces the necessary mathematical concepts in the first three chapters, which cover wave propagation problems and the issues to be developed in the remainder of the text.
The book describes the applications of the characteristic approach, singular surface theory, asymptotic methods, self-similarity and group theoretic methods, and the theory of generalized functions to several concrete physical examples from radiation gas dynamics, magneto gas dynamics, and nonequilibrium flows.

May 2010 280 pp.
9781439836903 13,950.

Chapman & Hall/CRC Texts in Statistical Science

Tang, A. /He, H. /Tu, X.: 442-192
Applied Categorical and Count Data Analysis

In addition to traditional topics like logistic and Poisson regression models, this book covers modern statistical analysis subjects, such as models for count variables, longitudinal data analysis, reliability analysis, and methods for dealing with missing values. It pays special attention to small samples by including exact methods for inference where possible.
The authors analyze dependent outcomes from clustered and longitudinal study designs using the generalized linear mixed-effects model and weighted generalized estimating equations.

Sep. 2010 360 pp.
9781439806241 12,640.

Chapman Hall /CRC

Lecture Notes in Mathematics,

442-138

Vol. 2000: Yserentant, H.:

Regularity and Approximability of Electronic Wave Functions

The electronic Schrodinger equation describes the motion of N-electrons under Coulomb interaction forces in a field of clamped nuclei.
The solutions of this equation, the electronic wave functions, depend on 3N variables, with three spatial dimensions for each electron.
Approximating these solutions is thus inordinately challenging, and it is generally believed that a reduction to simplified models, such as those of the Hartree-Fock method or density functional theory, is the only tenable approach.
This book seeks to show readers that this conventional wisdom need not be ironclad: the regularity of the solutions, which increases with the number of electrons, the decay behavior of their mixed derivatives, and the antisymmetry enforced by the Pauli principle contribute properties that allow these functions to be approximated with an order of complexity which comes arbitrarily close to that for a system of one or two electrons.

May 2010 190 pp.
9783642122477 8,450.

442-055

Vol. 1997: Banagl, M.:

Intersection Spaces, Spatial Homolohy Truncation, & String Theory

The present monograph introduces a method that assigns to certain classes of stratified spaces cell complexes, called intersection spaces, whose ordinary rational homology satisfies generalized Poincare duality.
The cornerstone of the method is a process of spatial homology truncation, whose functoriality properties are analyzed in detail.
The material on truncation is autonomous and may be of independent interest to homotopy theorists. The cohomology of intersection spaces is not isomorphic to intersection cohomology and possesses algebraic features such as perversity-internal cup-products and cohomology operations that are not generally available for intersection cohomology.
A mirror-symmetric interpretation, as well as applications to string theory concerning massless D-branes arising in type IIB theory during a Calabi-Yau conifold transition, are discussed.

May 2010 213 pp.
9783642125881 8,450.

442-119

Vol. 1996: Lorenz, T.:

Mutational Analysis: A Joint Framework for Cauchy Problems in and Beyond Vector Spaces

Ordinary differential equations play a central role in science and have been extended to evolution equations in Banach spaces. For many applications, however, it is difficult to specify a suitable normed vector space. Shapes without a priori restrictions, for example, do not have an obvious linear structure.
This book generalizes ordinary differential equations beyond the borders of vector spaces with a focus on the well-posed Cauchy problem in finite time intervals.

June 2010 508 pp.
9783642124709 16,910.

Springer

Lecture Notes in Mathematics,

Vol. 1994: Baricz, A.: 442-087

Generalized Bessel Functions of the First Kind

*Includes a systematic description of various Bessel functions of the first kind *Contains a special chapter on geometric properties of generalized Bessel functions of the first kind *A large number of functional inequalities involving Bessel and hypergeometric functions are collected

In this volume we study the generalized Bessel functions of the first kind by using a number of classical and new findings in complex and classical analysis.
Our aim is to present interesting geometric properties and functional inequalities for these generalized Bessel functions.
Moreover, we extend many known inequalities involving circular and hyperbolic functions to Bessel and modified Bessel functions.

May 2010 200 pp.
9783642122293 8,450.

442-108

Vol. 1995: Khapalov, A.:

Controllability of Partial Differential Equations Governed by Multiplicative Controls

* Physically motivated, mathematically challenging and timely Relatively few results are available in the field The results described in this book are certainly novel and original

The goal of this monograph is to address the issue of the global controllability of partial differential equations in the context of mul-iplicative (or bilinear) controls, which enter the model equations as coefficients.
The mathematical models we examine include the linear and nonlinear parabolic and hyperbolic PDE's, the Schrodinger equation, and coupled hybrid nonlinear distributed parameter systems modeling the swimming phenomenon.
The book offers a new, high-quality and intrinsically nonlinear methodology to approach the aforementioned highly nonlinear controllability problems.

May 2010 282 pp.
9783642124129 8,450.

Vol. 1991: Gazzola, F. /Grunau, H.-C. /Sweers, G.:

Polyharmonic Boundary Value Problems:

Positivity Preserving and Nonlinear Higher Order Elliptic Equations in Bounded Domains

This monograph covers higher order linear and nonlinear elliptic boundary value problems in bounded domains, mainly with the biharmonic or poly-harmonic operator as leading principal part. Underlying models and, in particular, the role of different boundary conditions are explained in detail.
As for linear problems, after a brief summary of the existence theory and Lp and Schauder estimates, the focus is on positivity or - since, in contrast to second order equations, a general form of a comparison principle does not exist - on "near positivity."
The required kernel estimates are also presented in detail. 442-102
As for nonlinear problems, several techniques well-known from second order equations cannot be utilized and have to be replaced by new and different methods.

June 2010 400 pp.
9783642122446 13,150.

Springer

Logic, Epistemology, and the Unity of Science,

Vol. 17: **Duzi, A. /Jespersen, B. /Materna, P.:** 442-052
Procedural Semantics for Hyperintensional Logic: Foundations & Applications of Transparent Intensional Logic

This volume sets out the foundations of Transparent Intensional Logic, together with many applications to a wide range of topics including formal semantics, philosophy of language, and philosophical logic. Special attention is devoted to some topics that generally tend to be dealt with only in passing.
They include, inter alia, notional attitudes, knowing whether, concepts (understood rigorously and non-mentalistically),attitudes de re, and anaphora in hyperintensional contexts.

Mar. 2010 **550 pp.**
9789048188116 **31,950.**

Trends in Logic,

Vol. 30: **Indrzejczak, A.:** 442-053
Natural Deduction, Hybrid Systems and Modal Logics

This volume provides an extensive treatment of Natural Deduction and related types of proof systems, with a focus on the practical aspects of proof methods. The book has two main aims: Its first aim is to provide a systematic and historical survey of the variety of Natural Deduction systems in Classical and Modal Logics.
The second aim is to present some systems of hybrid character, mixing Natural Deduction with other kinds of proof methods (including Sequent systems, Tableaux, Resolution).
Such systems tend to be more universal and effective, because of the possibility of mixing strategies of proof search from different areas. All necessary background material is provided, in particular, a detailed presentation of Modal Logics, including First-Order Modal and Hybrid Modal Logics.

Mar. 2010 **515 pp.**
9789048187843 **31,950.**

Universitext

Peterson, A. /Kelly, W.: (Originally published by Prentice Hall, 2004)
The Theory of Differential Equations: Classical and Qualitative, 2nd ed. 442-127

This second edition is updated to be compatible with Mathematica, version 7.0, and all Mathematica codes are in the book itself.
This new edition also provides 81 additional exercises, a new section in Chapter 1 on the generalized logistic equation, an additional theorem in Chapter 2 concerning fundamental matrices, and many further enhancements to the first edition.
This book can be used either for a second course in ordinary differential equations or as an introductory course for well-prepared students.
The prerequisites for this book are three semesters of calculus and a course in linear algebra, although the needed concepts from linear algebra are introduced along with examples in the book.

Apr. 2010 **424 pp.**
9781441957825 **9,750.**

Springer

Springer Texts in Statistics

DasGupta, A.: 442-173

Fundamentals of Probability

This is a text encompassing all of the standard topics in introductory probability theory, together with a significant amount of optional material of emerging importance.
The emphasis is on a lucid and accessible writing style, mixed with a large number of interesting examples of a diverse nature.
The text will prepare students extremely well for courses in more advanced probability and in statistical theory and for the actuary exam.
The book covers combinatorial probability, all the standard univariate discrete and continuous distributions, joint and conditional distributions in the bivariate and the multivariate case, the bivariate normal distribution, moment generating functions, various probability inequalities, the central limit theorem and the laws of large numbers, and the distribution theory of order statistics.
In addition, the book gives a complete and accessible treatment of finite Markov chains, and a treatment of modern urn models and statistical genetics.

Mar. 2010 494 pp.
9781441957795 16,910.

Luo, A. (ed.): 442-184

Dynamical Systems:
Discontinuous, Stochasticity and Time-Delay

Dynamical Systems: Discontinuous, Stochasticity and Time-Delay provides an overview of the most recent developments in nonlinear dynamics, vibration and control.
This book focuses on the most recent advances in all three areas, with particular emphasis on recent analytical, numerical and experimental research and its results.
Real dynamical system problems, such as the behavior of suspension systems of railways, nonlinear vibration and applied control in coal manufacturing, along with the multifractal spectrum of LAN traffic, are discussed at length, giving the reader a sense of real-world instances where these theories are applied.

Mar. 2010 450 pp.
9781441957535 35,710.

Studies in Classification, Data Analysis,& Knowledge Organization

Ingrassia, S. /Rocci, R. /Vichi, M. (eds.): 442-179

New Perspectives in
Statistical Modeling and Data Analysis

The 7th Conference of the Classification and Data Analysis Group (ClaDAG) of the Italian Statistical Society, held at the University of Catania, Italy, in September 2009.
The volume provides recent developments results in data analysis, classification and multivariate statistics and highlights perspectives of new scientific researches within such areas.
Particular attention is devoted to methodological issues in clustering, statistical modeling and data mining. Further, many papers provide significant contributions in a wide range of applications like finance, marketing, social science and evaluation.

Nov. 2010 430 pp.
9783642113628 18,790.

Springer

Sprott, J.:

Elegant Chaos: Algebraically Simple Chaotic Flows

442-036

This heavily illustrated book collects in one source most of the mathematically simple systems of differential equations whose solutions are chaotic. It includes the historically important systems of van der Pol, Duffing, Ueda, Lorenz, Rossler, and many others, but it goes on to show that there are many other systems that are simpler and more elegant. Many of these systems have been only recently discovered and are not widely known. Most cases include plots of the attractor and calculations of the spectra of Lyapunov exponents.

Aug. 2010 300 pp.
9789812838810 10,690.

Ammari, H. /Benlirane, A. /Touzani, A. (eds.):

Recent Developments in Nonlinear Analysis, 2008: Proceedings of the Conference in Mathematics and Mathematical Physics Morocco, 2008

This volume contains a selection of contributions by prominent mathematicians from the many interesting presentations delivered at the C. M. M. P. that was held in Fez, Morocco October, 2008. Readers will find that this volume merges different approaches in nonlinear analysis, and covers, in a broad and balanced fashion, both the theoretical and numerical aspects of the subject.

442-084

Feb. 2010 340 pp.
9789814295567 17,810.

Lin, I.-H.:

442-118/119

Classical Complex Analysis, Vol. 1: A Geometrical Approach

Classical Complex Analysis, available in two volumes, provides a clear, broad and solid introduction to one of the remarkable branches of exact science, with an emphasis on the geometric aspects of analytic functions. Volume 1 begins with a geometric description of what a complex number is, followed by a detailed account of algebraic, analytic and geometric properties of standard complex-valued functions. Geometric properties of analytic functions are then developed and described in detail, and various applications of residues are included; analytic continuation is also introduced.

Aug. 2010 900 pp.
9789814261227 / 9789814261234 16,170./10,690. (Paper ed.)

World Scientific Lecture Notes in Physics,

Vol. 81: Rothe, H. /Rothe, K.:

442-277

Classical and Quantum Dynamics of Constrained Hamiltonian Systems

This book is an introduction to the field of constrained Hamiltonian systems and their quantization, a topic which is of central interest to theoretical physicists who wish to obtain a deeper understanding of the quantization of gauge theories, such as describing the fundamental interactions in nature. Beginning with the early work of Dirac, the book covers the main developments in the field up to more recent topics, such as the field-antifield formalism of Batalin and Vilkovisky, including a short discussion of how gauge anomalies may be incorporated into this formalism.

Aug. 2010 320 pp.
9789814299640 10,960.

World Scientific Pub.

Documents mathematiques,

Vol. 1: Serre, J.: 442-112

Exposes de seminaires, 1950-1999. Deuxieme ed.

This volume gathers seminar talks given by J-P. Serre between 1950 and 1999 in various seminars: Bourbaki, Cartan, Chevalley and Delange-Pisot-Poitou.
The themes extend from algebraic topology to number theory, covering also Lie group theory, algebraic geometry and modular forms.
It gives a both presentation of works by other mathematicians (Borel, Dwork,...) and personal works, like his talk at the Chevalley seminar on algebraic fibre spaces, which was to inspire Grothendieck for his construction of etale cohomology. None of these texts is available in the four volumes of J-P. Serre's "Collected Papers".

2008 304 pp.
9782856292426 10,340.

Seminaires et Congres,

Vol. 16: Faraut, J. /Ouerdiane, H. (eds.): 442-049

Analyse et Probabilites

The International Congress on Analysis and Probability, held in Hammamet, Tunisia, in 2003, was organized under the aegis of the French Mathematical Society and the Tunisian Mathematical Society.
The aim of this conference was to present recent developments in analysis, mainly in harmonic analysis and probability, stressing their interplay.
The papers in this volume, originating from talks given at this conference, are related to stochastic analysis, harmonic analysis, and partial differential equations.

Dec. 2009 232 pp.
9782856292389 11,280.

Cours Specialises - Collection SMF,

Vol. 17: Renard, D.: 442-107

Representations des Groupes Reductifs p-adiques

This book presents a part of the theory of (complex) representations of p-adic reductive groups. Starting from fundamentals accessible to graduate students, it culminates with the "Bernstein center" theory and the Langlands classification of smooth irreducible representations.
Table of Contents: *Algebres a idempotents *Espaces et groupes totalement discontinous *Representations des groupes totalement discontinous *Representations compactes, de carre integrable, unitaires *Structure des groupes reductifs p-adiques *Representations des groupes reductifs p-adiques etc

Jan. 2010 332 pp.
9782856292785 12,330.

Vol. 16: Werner, W.: 442-107

Percolation et Modele d'Ising

These lecture notes provide a mathematical introduction to the study of random lattice-based models from statistical physics.
Through the study of percolation and of the Ising model, the author introduces the notion of phase transitions and describes some classical techniques. One of the main goals of these notes is also to present recent results of Stanislav Smirnov concerning the conformal invariance of these models in two-dimensional space.

Dec. 2009 161 pp.
9782856292761 11,280.

The Societe Mathematique de France