Yurinsha Book News

Grundlehren der mathematischen wissenschaften,

Vol. 344: **Schneider, P.:** 456-098

p-Adic Lie Groups

Manifolds over complete nonarchimedean fields together with notions like tangent spaces and vector fields form a convenient geometric language to express the basic formalism of p-adic analysis. The volume starts with a self-contained and detailed introduction to this language. This includes the discussion of spaces of locally analytic functions as topological vector spaces, important for applications in representation theory.
The author then sets up the analytic foundations of the theory of p-adic Lie groups and develops the relation between p-adic Lie groups and their Lie algebras.
The second part of the book contains, for the first time in a textbook, a detailed exposition of Lazard's algebraic approach to compact p-adic Lie groups, via his notion of a p-valuation, together with its application to the structure of completed group rings.

July 2011 **248 pp.**
9783642211461 **13,910.**

Springer

MSRI Mathematical Circles Library,

Vol. 4: **Belov, A. /Fedorov, R. /** 456-002
Kovaldzhi, A. /Yashchenko, I. (eds.):
Moscow Mathematical Olympiads, 1993-1999

Many mathematically inclined students have found that tackling these problems, or even just reading their solutions, is a great way to develop mathematical insight.
In 2006 the Moscow Center for Continuous Mathematical Education began publishing a collection of problems from the Moscow Mathematical Olympiads, providing for each an answer (and sometimes a hint) as well as one or more detailed solutions.
This volume represents the years 1993-1999.
The problems and the accompanying material are well suited for math circles. They are also appropriate for problem-solving classes and practice for regional and national mathematics competitions.

July 2011 228 pp.
9780821853634 4,840.

Student Mathematical Library,

Vol. 61: **Bonato, A. /Nowakowski, R.:** 456-004
The Game of Cops and Robbers on Graphs

This book is the first and only one of its kind on the topic of Cops and Robbers games, and more generally, on the field of vertex pursuit games on graphs.
The book is written in a lively and highly readable fashion, which should appeal to both senior undergraduates and experts in the field.
One of the main goals of the book is to bring together the key results in the field; as such, it presents structural, probabilistic, and algorithmic results on Cops and Robbers games. Several recent and new results are discussed, along with a comprehensive set of references.
The book is suitable for self-study or as a textbook, owing in part to the over 200 exercises.
The reader will gain insight into all the main directions of research in the field and will be exposed to a number of open problems.

Sep. 2011 267 pp.
9780821853474 5,580.

Collected Works,

Vol. 23: **Goldfeld, D. (ed.):** 456-082
Collected Works of Herve Jacquet

This volume represents a selection of his most influential papers not already available in book form. The volume contains papers on the L-function attached to a pair of representations of the general linear group.
Thus, it completes Jacquet's papers on the subject (joint with Shalika and Piatetski-Shapiro) that can be found in the volume of selected works of Piatetski-Shapiro.
In particular, two often quoted papers of Jacquet and Shalika on the classification of automorphic representations and a historically important paper of Gelbart and Jacquet on the functorial transfer from GL(2) to GL(3) are included. Another series of papers pertains to the relative trace formula introduced by Jacquet.
This is a variant of the standard trace formula which is used to study the period integrals of automorphic forms. Nearly complete results are obtained for the period of an automorphic form over a unitary group.

Sep. 2011 597 pp.
9780821853566 16,990.

Graduate Studies in Mathematics,

Vol. 125: Varolin, D.: 456-161
Riemann Surfaces by Way of Comlex Analytic Geometry

This book establishes the basic function theory and complex geometry of Riemann surfaces, both open and compact.
Many of the methods used in the book are adaptations and simplifications of methods from the theories of several complex variables and complex analytic geometry and would serve as excellent training for mathematicians wanting to work in complex analytic geometry.
After three introductory chapters, the book embarks on its central, and certainly most novel, goal of studying Hermitian holomorphic line bundles and their sections.
Among other things, finite-dimensionality of spaces of sections of holomorphic line bundles of compact Riemann surfaces and the triviality of holomorphic line bundles over Riemann surfaces are proved, with various applications.
Perhaps the main result of the book is Hormander's Theorem on the square-integrable solution of the Cauchy-Riemann equations.

Sep. 2011 252 pp.
9780821853696 7,810.

AMS/IP Studies in Advanced Mathematics,

Vol. 50: Andersen, J. / 456-166
Boden, H. /Hahn, A. /Himpel, B. (eds.):
Chern-Simons Gauge Theory: 20 Years After

In 1989, Edward Witten discovered a deep relationship between quantum field theory and knot theory, and this beautiful discovery created a new field of research called Chern-Simons theory.
This field has the remarkable feature of intertwining a large number of diverse branches of research in mathematics and physics, among them low-dimensional topology, differential geometry, quantum algebra, functional and stochastic analysis, quantum gravity, and string theory.
The 20-year anniversary of Witten's discovery provided an opportunity to bring together researchers working in Chern-Simons theory for a meeting, and the resulting conference, which took place during the summer of 2009 at the Max Planck Institute for Mathematics in Bonn, included many of the leading experts in the field.

July 2011 446 pp.
9780821853535 16,120.

Vol. 49: Plaue, M. /Rendall, A. /Scherfner, M. (eds.):
Advances in Lorentzian Geometry: Proceedings of the Lorentzian Geometry Conference in Berlin 456-182

This volume offers deep insight into the methods and concepts of a very active field of mathematics that has many connections with physics.
Researchers and students will find it to be a useful source for their own investigations, as well as a general report on the latest topics of interest.
Presented are contributions from several specialists in differential geometry and mathematical physics, collectively demonstrating the wide range of applications of Lorentzian geometry, and ranging in character from research papers to surveys to the development of new ideas.

June 2011 143 pp.
9780821853528 7,320.

A. M. S.

Mathematical Surveys and Monographs,

Vol. 175: de Launey, W. /Flannery, D.: 456-104
Algebraic Design Theory

This book provides a unified vision of the algebraic themes which have developed so far in design theory.
These include the applications in design theory of matrix algebra, the automorphism group and its regular subgroups, the composition of smaller designs to make larger designs, and the connection between designs with regular group actions and solutions to group ring equations.

July 2011 297 pp.
9780821844960 11,660.

CBMS Regional Conference Series in Mathematics,

Vol. 115: Brualdi, R.: 456-065
The Mutually Beneficial Relationships of Graphs and Matrices

Graphs and matrices enjoy a fascinating and mutually beneficial relationship. This interplay has benefited both graph theory and linear algebra.
In one direction, knowledge about one of the graphs that can be associated with a matrix can be used to illuminate matrix properties and to get better information about the matrix.
Examples include the use of digraphs to obtain strong results on diagonal dominance and eigenvalue inclusion regions and the use of the Rado-Hall theorem to deduce properties of special classes of matrices.
Going the other way, linear algebraic properties of one of the matrices associated with a graph can be used to obtain useful combinatorial information about the graph.

July 2011 101 pp.
9780821853153 4,220.

Contemporary Mathematics,

Vol. 547: Jarosz, K. (ed.): 456-130
Function Spaces in Modern Analysis

This volume contains the proceedings of the Sixth Conference on Function Spaces, which was held from May 18-22, 2010, at Southern Illinois University at Edwardsville.
The papers cover a broad range of topics, including spaces and algebras of analytic functions of one and of many variables (& operators on such spaces), spaces of integrable functions, spaces of Banach-valued functions, isometries of function spaces, geometry of Banach spaces, and other related subjects.

Aug. 2011 244 pp.
9780821852514 11,040.

Vol. 546: Connes, A. /Gorokhovsky, A. /
Lesch, M. /Pflaum, M. /Rangipour, B. (eds.):
Noncommutative Geometry and Glglobal Analysis 456-170

This volume represents the proceedings of the conference on Noncommutative Geometric Methods in Global Analysis, held in honor of Henri Moscovici, from June 29-July 4, 2009, in Bonn, Germany.
Henri Moscovici has made a number of major contributions to noncommutative geometry, global analysis, and representation theory.

July 2011 315 pp.
9780821849446 13,020.

A. M. S.

Enderton, H.: A Mathematical Introduction To Logic, 3rd ed. 456-049

This Second Edition, offers increased flexibility with topic coverage, allowing for choice in how to utilize the textbook in a course.
The author has made this edition more accessible to better meet the needs of today's undergraduate mathematics and philosophy students.
It is intended for the reader who has not studied logic previously, but who has some experience in mathematical reasoning.

Feb. 2012 364 pp.
9780123869777 11,160.

Wilcox, R.: Introduction to Robust Estimation and Hypothesis Testing, 3rd ed. 456-238

This revised book provides a thorough explanation of the foundation of robust methods, incorporating the latest updates on R and S-Plus, robust ANOVA (Analysis of Variance) and regression. It guides advanced students and other professionals through the basic strategies used for developing practical solutions to problems, and provides a brief background on the foundations of modern methods, placing the new methods in historical context.
This Second Edition, focuses on the practical applications of modern, robust methods which can greatly enhance our chances of detecting true differences among groups and true associations among variables.

Jan. 2012 608 pp.
9780123869838 14,880.

Academic

Progress in Mathematics,

Vol. 292: **Kolk, J. /van den Ban, E. (eds.): Geometric Aspects of Analysis and Mechanics** 456-088

Hans Duistermaat, an influential geometer-analyst, made substantial contributions to the theory of ordinary and partial differential equations, symplectic, differential, and algebraic geometry, minimal surfaces, semisimple Lie groups, mechanics, mathematical physics, and related fields.
Written in his honor, the invited and refereed articles in this volume contain important new results as well as surveys in some of these areas, clearly demonstrating the impact of Duistermaat's research and, in addition, exhibiting interrelationships among many of the topics.

Aug. 2011 332 pp.
9780817682439 19,130.

Operator theory: Advances and Applications,

Vol. 217: **Arlinskii, Y. /Belyi, S. /Tsekanovskii, E.: Conservative Realizations of Herglotz-Nevanlinna Functions** 456-109

The main feature of the monograph is a new approach to the realization theory profoundly involving developed extension theory in triplets of rigged Hilbert spaces and unbounded operators as state-space operators of linear systems.
The connections of the realization theory to systems with accretive, sectorial, and contractive state-space operators as well as to the Phillips-Kato sectorial extension problem, the Krein-von Neumann and Friedrichs extremal extensions are provided.

Aug. 2011 528 pp.
9783764399955 23,610.

Birkhauser

Nair, S.: 456-029

Advanced Topics in Applied Mathematics

This book is ideal for engineering, physical science, and applied mathematics students and professionals who want to enhance their mathematical knowledge.
Advanced Topics in Applied Mathematics covers four essential applied mathematics topics: Green's functions, Integral equations, Fourier transforms, and Laplace transforms.
Also included is a useful discussion of topics such as the Wiener-Hopf method, Finite Hilbert transforms, Cagniard-De Hoop method, and the proper orthogonal decomposition.
This book reflects Sudhakar Nair's long classroom experience and includes numerous examples of differential and integral equations from engineering and physics to illustrate the solution procedures.
The text includes exercise sets at the end of each chapter and a solutions manual, which is available for instructors.

Mar. 2011 232 pp.
9781107006201 9,690.

Lecture Notes in Logic,

Vol. 39: Casanovas, E.: 456-046

Simple Theories and Hyperimaginaries

In the 1990s Kim and Pillay generalized stability, a major model theoretic idea developed by Shelah twenty-five years earlier, to the study of simple theories.
This book is an up-to-date introduction to simple theories and hyperimaginaries, with special attention to Lascar strong types and elimination of hyperimaginary problems.
Assuming only knowledge of general model theory, the foundations of forking, stability, and simplicity are presented in full detail.
The treatment of the topics is as general as possible, working with stable formulas and types and assuming stability or simplicity of the theory only when necessary.

June 2011 192 pp.
9780521119559 8,550.

London Mathematical Society Lecture Note Series,

Vol. 389: Marinucci, D. /Peccati, G.: 456-219

Random Fields on the Sphere: Representation, Limit Theorems and Cosmological Applications

Many recent developments on the method of moments and cumulants for the analysis of Gaussian subordinated fields are reviewed.
This background material is used to analyse spectral representations of isotropic spherical random fields and then to investigate in depth the properties of associated harmonic coefficients.
Properties and statistical estimation of angular power spectra and polyspectra are addressed in full.
The authors are strongly motivated by cosmological applications, especially the analysis of cosmic microwave background (CMB) radiation data, which has initiated a challenging new field of mathematical and statistical research.
Ideal for mathematicians and statisticians interested in applications to cosmology, it will also interest cosmologists and mathematicians working in group representations, stochastic calculus and spherical wavelets.

Aug. 2011 350 pp.
9780521175616 7,980.

Cambridge

Das, A.: 456-071

Computational Number Theory

This text introduces the vast and fascinating area of computational number theory. It treats algorithms for common number-theoretic problems in an elementary fashion, eliminating the need for an extensive prerequisite of algebra and analysis. The GP/PARI calculator is used throughout to demonstrate the working of arithmetic algorithms.
The book contains detailed examples illustrating almost every algorithmic concept discussed. It also includes practical applications of arithmetic algorithms in public-key cryptography.

Jan. 2012 500 pp.
9781439866153 11,830.

Pure and Applied Mathematics,

Martynyuk, A. /Martynyuk, Yu.: 456-142

Uncertain Dynamical Systems: Stability and Motion Control

A concise review of current research developments, this self-contained book provides systematic instructive analysis of uncertain systems of the following types: ordinary differential equations, impulsive equations, equations on time scales, singularly perturbed differential equations, and set differential equations.
Each chapter contains new conditions of stability of unperturbed motion of the above-mentioned type of equations, along with some applications.

Jan. 2012 352 pp.
9781439876855 15,700.

Monographs & Surveys in Pure and Applied Mathematics

Mukhopadhyay, S.: 456-146

Higher Order Derivatives

Since higher order derivatives are useful in many places, nth order derivatives are often defined directly. These derivatives are more general than the ordinary derivative and are useful in many purposes.
This book discusses higher order derivatives and the relations among them. It covers higher order generalized derivatives, including Peano derivative, d.I.V.P. derivative, symmetric and unsymmetric Riemann derivative, symmetric and unsymmetric Cesaro derivative, symmetric and unsymmetric aorel derivative, symmetric and unsymmetric LP-derivative, symmetric and unsymmetric Laplace derivative, and Abel derivative.

Nov. 2011 210 pp.
9781439880470 1 3,500.

Monographs on Statistics and Applied Probability,

Kessler, M. / 456-132
Lindner, A. /Sorensen, A.:

Statistical Methods for Stochastic Differential Equations

The seventh volume in the SemStat series, this book presents current research trends and recent developments in statistical methods for stochastic differential equations.
Written to be accessible both to new students and seasoned researchers, each chapter starts with introductions to the topics and builds gradually toward discussing recent research.

Oct. 2011 416 pp.
9781439849408 13,500.

Chapman & Hall/CRC

Lecture Notes in Mathematics,

Vol. 2032: **Barmak, J.:** 456-167

Algebraic Topology of Finite Topological Spaces and Applications

This volume deals with the theory of finite topological spaces and its relationship with the homotopy and simple homotopy theory of polyhedra. The interaction between their intrinsic combinatorial and topological structures makes finite spaces a useful tool for studying problems in Topology, Algebra and Geometry from a new perspective.
In particular, the methods developed in this manuscript are used to study Quillen's conjecture on the poset of p-subgroups of a finite group and the Andrews-Curtis conjecture on the 3-deformability of contractible two-dimensional complexes.
This self-contained work constitutes the first detailed exposition on the algebraic topology of finite spaces. It is intended for topologists and combinatorialists, but it is also recommended for advanced undergraduate students and graduate students with a modest knowledge of Algebraic Topology.

Aug. 2011 **174 pp.**
9783642220029 **6,390.**

Vol. 2027: **Ferrara, S. /Fioresi, R. /Varadarajan, V. (eds.): Supersymmetry in Mathematics and Physics: UCLA Los Angeles, USA 2010**

Supersymmetry was created by the physicists in the 1970's to give a unified treatment of fermions and bosons, the basic constituents of matter. Since then its mathematical structure has been recognized as that of a new development in geometry, and mathematicians have busied themselves with exploring this aspect. 456-077
This volume collects recent advances in this field, both from a physical and a mathematical point of view, with an accent on a rigorous treatment of the various questions raised.
Table of contents: Introduction.- Black Holes and First Order Flows in Supergravity.- Representations of Super Lie Groups: Some Remarks.- On Chiral Quantum Superspaces.- On the Construction of Chevalley Supergroup.- Indecomposable Finite-dimensional Representations of a Class o f Lie algebras and Lie Superalgebras.- On the Geometry of Super Riemann Surfaces.- Charge Orbits and Moduli Spaces of Black Hole Attractors.- Maximal Supersymmetry.- Lie Supergroups, Unitary Representations, and Invariant Cones.- Geometry of Dual Pairs of Complex Supercurves.- On the Superdimension of an Irreducible Representation.

Aug. 2011 **250 pp.**
9783642217432 **8,220.**

Vol. 2029: **Gillibert, P. /Wehrung, F.:** 456-081

From Objects to Diagrams for Ranges of Functors

This work introduces tools from the field of category theory that make it possible to tackle a number of representation problems that have remained unsolvable to date (e.g. the determination of the range of a given functor). The basic idea is: if a functor lifts many objects, then it also lifts many (poset-indexed) diagrams.
Table of contents: 1 Background.- 2 Boolean Algebras Scaled with Respect to a Poset.- 3 The Condensate Lifting Lemma (CLL).- 4 Larders from First-order Structures.- 5 Congruence-Preserving Extensions.- 6 Larders from von Neumann Regular Rings.- 7 Discussion.

Aug. 2011 **160 pp.**
9783642217739 **6,390.**

Springer

Algebra and Applications,

Vol. 15: Geck, M. /Jacon, N.: 456-080
Representations of Hecke Algebras at Roots of Unity

The modular representation theory of Iwahori-Hecke algebras and this theory's connection to groups of Lie type is an area of rapidly expanding interest; it is one that has also seen a number of breakthroughs in recent years.
In classifying the irreducible representations of Iwahori-Hecke algebras at roots of unity, this book is a particularly valuable addition to current research in this field.
Using the framework provided by the Kazhdan-Lusztig theory of cells, the authors develop an analogue of James' (1970) "characteristic-free" approach to the representation theory of Iwahori-Hecke algebras in general.
Presenting a systematic and unified treatment of representations of Hecke algebras at roots of unity, this book is unique in its approach and includes new results that have not yet been published in book form.

June 2011 404 pp.
9780857297150 16,460.

Lecture Notes of the Unione Matematica Italiana,

Vol. 12: Anandam, V.: 456-107
Harmonic Functions and Potentials on Finite or Infinite Networks

Random walks, Markov chains and electrical networks serve as an introduction to the study of real-valued functions on finite or infinite graphs, with appropriate interpretations using probability theory and current-voltage laws. The relation between this type of function theory and the (Newton) potential theory on the Euclidean spaces is well-established. The latter theory has been variously generalized, one example being the axiomatic potential theory on locally compact spaces developed by Brelot, with later ramifications from Bauer, Constantinescu and Cornea.
A network is a graph with edge-weights that need not be symmetric. This book presents an autonomous theory of harmonic functions and potentials defined on a finite or infinite network, on the lines of axiomatic potential theory.

July 2011 190 pp.
9783642213984 6,390.

Springer Series in Statistics

Buhlmann, P. /van de Geer, S.: 456-200
Statistics for High-Dimensional Data: Methods, Theory and Applications

This book presents a detailed account of recently developed approaches, including the Lasso and versions of it for various models, boosting methods, undirected graphical modeling, and procedures controlling false positive selections.
A special characteristic of the book is that it contains comprehensive mathematical theory on high-dimensional statistics combined with methodology, algorithms and illustrations with real data examples. This in-depth approach highlights the methods' great potential and practical applicability in a variety of settings.

May 2011 556 pp.
9783642201912 16,460.

Springer

Louck, J.: **Applications of Unitary Symmetry and Combinatorics** 456-092

This monograph is a synthesis of the theory of the pairwise coupling of the angular momenta of arbitrarily many independent systems to the total angular momentum in which the universal role of doubly stochastic matrices and their quantum-mechanical probabilistic interpretation is a major theme. A uniform viewpoint is presented based on the structure of binary trees. This includes a systematic method for the evaluation of all $3n$-j coefficients and their relationship to cubic graphs.
A number of topical subjects that emerge naturally are also developed, such as the algebra of permutation matrices, the properties of magic squares and an associated generalized Regge form, the Zeilberger counting formula for alternating sign matrices, and the Heisenberg ring problem, viewed as a composite system in which the total angular momentum is conserved.

May 2011 350 pp.
9789814350716 11,430.

Series on Multivariate Analysis,

Vol. 9: Rao, M.: **Random and Vector Measures** 456-151

The book is devoted to the structural analysis of vector and random (or both) valued countably additive measures, and used for integral representations of random fields. The spaces can be Banach or Frechet types.
Several stationary aspects and related processes are analyzed whilst numerous new results are included and many research avenues are opened up.

June 2011 550 pp.
9789814350815 18,600.

Chan, H.-C.: **An Invitation to Q-Series: From Jacobi's Triple Product Identity to Ramanujan's "Most Beautiful Identity"** 456-069

The aim of these lecture notes is to provide a self-contained exposition of several fascinating formulas discovered by Srinivasa Ramanujan.
Two central results in these notes are: (1) the evaluation of the Rogers - Ramanujan continued fraction - a result that convinced G H Hardy that Ramanujan was a "mathematician of the highest class", and (2) what G.H. Hardy called Ramanujan's "Most Beautiful Identity".

Apr. 2011 236 pp.
9789814343848 12,280.

Sills, A. (ed.): **Selected Works of George E Andrews** (with Commentary) 456-036

George E Andrews is
the Evan Pugh Professor of Mathematics at Pennsylvania State University.
He is also President of the AMS for the period of 2009-2011.
He is a world pioneer in partitions and q-series and his contributions include more than 250 scientific papers and several books on number theory and the theory of partitions. In 1976 he discovered Ramanujan's Lost Notebook, a finding which changed the shape of modern q-series research.
Besides giving readers access to George Andrews' most important papers, this volume also provides his background commentary and comprehensive assessment of years of research and findings within the field of integer partitions.

Dec. 2011 1100 pp.
9781848166660 37,850.

World Scientific/ Imperial College

de Gruyter Series in Nonlinear Analysis and Applications,

Vol. 16: Hajek, P. /Johanis, M.: 456-128
Higher Smoothness in Banach Spaces

This book is about the subject of higher smoothness in separable real Banach spaces. It brings together several angles of view on polynomials, both in finite and infinite setting. Also a rather thorough and systematic view of the more recent results, and the authors work is given.
The book revolves around two main broad questions: What is the best smoothness of a given Banach space, and its structural consequences? How large is a supply of smooth functions in the sense of approximating continuous functions in the uniform topology, i.e. how does the Stone-Weierstrass theorem generalize into infinite dimension where measure and compactness are not available?

Oct. 2012 450 pp.
9783110258981 23,780.

Inverse and Ill-Posed Problems Series,

Vol. 56: Wang, Y. /Yagola, A. /Yang, C.: 456-163
Computational Methods for Applied Inverse Problems

The intent of the book is to report recent advances of inversion theory and recent developments with practical applications in frontiers of sciences. Especially, the book reports inverse design and novel computational methods for inverse problems.
The practical applications include inverse scattering, chemistry, molecular spectra data processing, quantitative remote sensing inversion, seismic imaging, oceanography and astronomical imaging.

May 2012 550 pp.
9783110259049 23,780.

de Gruyter Studies in Mathematics,

Vol. 43: Meerschaert, M. /Sikorskii, A.: 456-144
Stochastic Models for Fractional Calculus

Ideas from probability can be very useful to understand and motivate fractional calculus models for anomalous diffusion. Fractional derivatives in space are related to long particle jumps.
Fractional time derivatives code particle sticking and trapping.
This probabilistic point of view also leads to some interesting extensions, including vector fractional derivatives, and tempered fractional derivatives.

Jan. 2012 350 pp.
9783110258691 18,290.

De Gruyter Series in Discrete Mathematics and Applications

Pop, P.: 456-269
Network Design Problems:
Modeling and Optimization of
Generalized Network Design Problems

The purpose of the book is to describe in a unified manner a series of mathematical models and methods developed in the last years for generalized combinatorial optimization problems. This area of research represents a hot topic. The underlying task is to generate, from a large sample of elements, a subset with defined conditions and optimized parameters, such as minimum weight, shortest distance, etc.

Mar. 2012 250 pp.
9783110267587 18,290.

de Gruyter

10. Dover Publishing

***312 Exner, R. /Rosskopf, M.:**
Logic in Elementary Mathematics. Reprint 1959 ed.

This accessible, applications-related introductory treatment explores some of the structure of modern symbolic logic useful in the exposition of elementary mathematics.
Topics include axiomatic structure and the relation of theory to interpretation.
Intended for beginning undergraduates, no prior training in logic is necessary, and numerous example and exercises aid in the mastery of the language of logic.
Reprint of the McGraw-Hill Company, Inc., New York, 1959 edition.

June 2011 **272 pp.**
(Dover) ***9780486482217*** ***2,530.***

***313 Sentilles, D.:**
A Bridge to Advanced Mathematics. Reprint 1975 ed.

This helpful "bridge" book offers students the foundations they need to understand advanced mathematics, to span the gap between a practically oriented calculus sequence and the theoretically orientated courses in algebra analysis and other topics which follow.
Part 1 provides the most basic tools, examples, and motivation for the manner, method, and material of higher mathematics.
Part 2 covers sets, relations, functions, infinite sets, and mathematical proofs and reasoning.
Reprint of the Williams & Wilkins Company, Baltimore, 1975 edition.

Aug. 2011 **416 pp.**
(Dover) ***9780486482194*** ***3,170.***

***314 Passman, D.:**
The Algebraic Structure of Group Rings. Reprint 1985 ed.

"Highly recommended" by the Bullettin of the London Mathematical Society, this book offers a comprehensive, self-contained treatment of group rings.
The subject involves the intersection of two essentially different disciplines, group theory and ring theory.
The Bullettin of the A M S hailed this treatment as "a majestic account," proclaiming it "encyclopedic and lucid."
Reprint of the Robert E. Krieger Publishing Company, Malabar, Florida, 1985 edition.

Sep. 2011 **752 pp.**
(Dover) ***9780486482064*** ***3,800.***

***315 Schreier, O. /Spenrner, E.:**
Introduction to Modern Algebra and Matrix Theory, 3rd ed. Reprint 1951

This unique text provides students with a basic course in both calculus and analytic geometry - no competitive editions cover both topics in a single volume.
Its prerequisites are minimal, and the order of its presentation promotes an intuitive approach to calculus.
Algebraic concepts receive an unusually strong emphasis.
Numerous exercises appear throughout the text.
Reprint of the Chelsea Publishing Company, New York, 1951 edition.

July 2011 **384 pp.**
(Dover) ***9780486482200*** ***3,170.***

***316 Smirnov. V.:**
Linear Algebra and Group Theory. Reprint 1961 ed.

Derived from an encyclopedic six-volume survey,
this accessible text by a prominent Soviet mathematician offers
a concrete approach, with an emphasis on applications.
Containing material not otherwise available to English-language
readers, the three-part treatment covers determinants and systems
of equations, matrix theory, and group theory.
Reprint of the McGraw-Hill, New York, 1961 edition.

Aug. 2011 **480 pp.**
(Dover) ***9780486482224*** ***3,800.***

***317 Finkbeiner II, D.:**
Introduction to Matrices and Linear Transformations. Reprint 1978 ed.

This versatile undergraduate text can be used in a variety of courses in
linear algebra. It contains enough material for a one-year course,
and it also serves as a support text and reference.
A combination of formal theory and related computational techniques,
it includes solutions to selected exercises.
Reprint of the W. H. Freeman San Francisco, 1978 edition.

June 2011 **480 pp.**
(Dover) ***9780486481593*** ***3,170.***

***318 Loomis, L.:**
Introduction to Abstract Harmonic Analysis. Reprint 1953 ed.

Harmonic analysis is a branch of advanced mathematics with
applications in such diverse areas as signal processing,
medical imaging, and quantum mechanics.
Geared toward advanced undergraduates and graduate students of
mathematics, it focuses on methods related to Gelfand's theory of
Banach algebra.
Reprint of the D. Van Nostrand Co., New York, 1953 edition.

July 2011 **192 pp.**
(Dover) ***9780486481234*** ***2,530.***

***319 Nickerson, H. /Spencer, D. /Steenrod, N.:**
Advanced Calculus. Reprint 1959 ed.

Classroom-tested in a Princeton University honors course,
this text offers a unified introduction to advanced calculus.
Starting with an abstract treatment of vector spaces and linear
transforms, the authors present a corresponding theory of
integration, concluding with a series of applications to
analytic functions of complex variables.
Reprint of the Van Nostrand , Princeton, New Jersey, 1959 edition.

Aug. 2011 **560 pp.**
(Dover) ***9780486480909*** ***3,170.***

***320 Arnold, L.:**
Stochastic Differential Equations: Theory and Applications. Reprint 1974 ed.

Classroom-tested and much-cited, this concise text is designed
for undergraduates.
It offers a valuable and instructive introduction to the basic concepts
of topology, taking an intuitive rather than an axiomatic viewpoint.
Reprint of the Prentice-Hall, Englewood Cliffs, 1962 edition.

July 2011 **256 pp.**
(Dover) ***9780486482361*** ***2,530.***

Gabay Reprint Series,

Les Editions Jacques Gabay sont specialisees dans la reedition
de grands textes scientifiques concernant principalement
les Mathematiques, la Physique, l'Histoire et la Philosophie des Sciences

Boutroux, P.:
Les principles de l'analyse mathematique
2 Vols. Set

2011 .... 9782876473171 34,280.

Catlan, E.:
Melanges mathematiques 3 Vols. Set

2011 .... 9782876473195 37,580.

Demartres, .:
Cours de geometrie infitesimale

2011 .... 9782876473249 18,790.

Einstein, A.:
Les fondements de la theorie
de la Relativitie generale.
+ Theorie unitaire de la gravitation
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