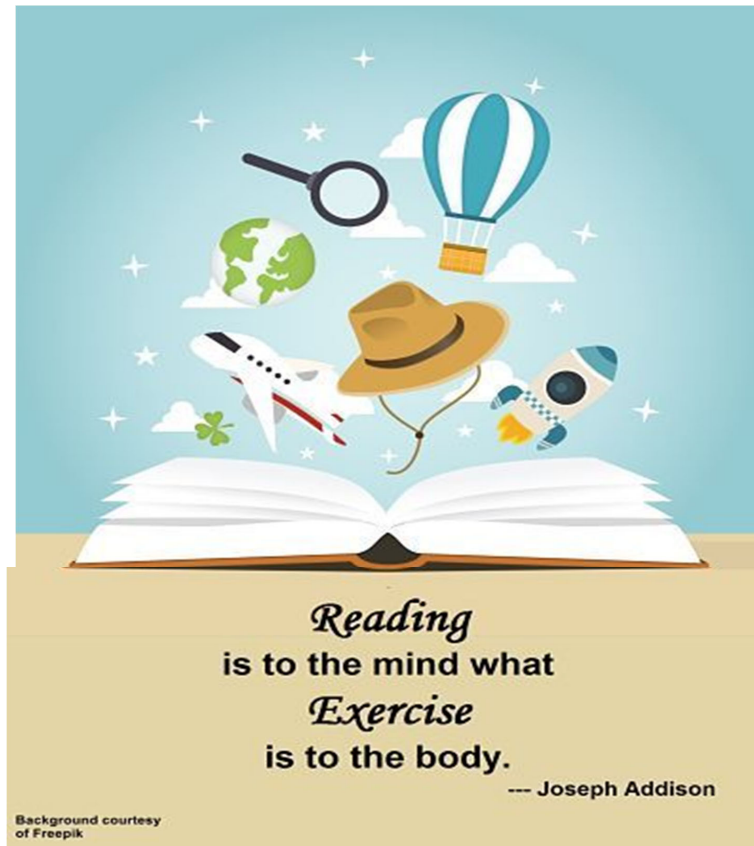


Math Department Library Catalog version 3.0



In the table below we show

- The last name of the 1st author (Editor)**
- The book title (might be abbreviated)**
- The number of copies in the library**

THE CATALOG IS SEARCHABLE:

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0	General, popular	1a
Author	Title	# copies
Abbott	Flatland	
Abbott	The Chauvenet Papers Vol. 1	
Abbott	The Chauvenet Papers Vol. 2	
Alexanderson	Putnam contest problems 1965-1984	
Aleksandrov	Mathematics: Its Content, Methods, and Meaning Part 1	
Aleksandrov	Mathematics: Its Content, Methods, and Meaning Part 2	
Amato	Stuff: The Materials the World is Made Of	
Archibald	Semicentennial Publications I: History	
Artino	The contest problem book 4	
Ascher	Mathematics elsewhere	
Balmond	Number 9. The search for the sigma code	
Barr	Second miscellany of puzzles	
Barwise	The liar. An essay on truth and circularity	
Behnke	Fundamentals of math. Vol. 1	
Bell . . .	Semicentennial Publications II: History Addresses	
Black	The nature of mathematics	
Boas	A collection of mathematics, verse, and stories	
Bochner	The role of mathematics in the rise of science	
Bowen	The shape of the river. Long-term consequences of considering race in college and university admissions	
Bressound	Calculus reordered	
Brooke	150 puzzles in crypt-arithmetic	
Brooks	The mythical man-month	
Brown	30-second math	
Bryan	Hodge podge	
Burger	Sphere-land	
Campbell	Mathematics. People, problems, results. I	
Campbell	Mathematics. People, problems, results. II	
Campbell	Mathematics. People, problems, results. III	
Carroll	Symbolic Logic and the Game of Logic	
Casti	Five golden rules	
Clapham	Oxford concise dictionary of mathematics	
Coxeter	The beauty of geometry	
Courant . . .	What is Mathematics? 1st Edition	3

Cowan . . .	Complexity: Metaphors, Models, and Reality	
Cupilari	The Nuts and Bolts of Proofs	
D'Angelo . . .	Mathematical Thinking: Problem-Solving and Proofs	
Dantzig	Number. The language of science	
Davis	The nature and power of mathematics	
Davis	The lore of large numbers	
Davis	Descartes' dream. The world according to mathematics	
Davis	The mathematical experience	
Denning	Computational thinking	
DeWitt . . .	Battelle Recontres	
Dispezio	Critical thinking puzzles	
Doob . . .	A Manual for Authors of Mathematical Papers	
Dunn	Mathematical bafflers	
Ellis	Basic concepts of measurement	
Engel	With good reason. An introduction to informal fallacies	
Eves	An introduction to the foundations and fundamental concepts of mathematics	
Exner	An Accompaniment to Higher Mathematics	
Fadiman	The mathematical magpie	
Fadiman	Fantasia mathematica	
Feynman	The Meaning of it All: Thoughts of a Citizen-Scientist	
Fisher	Getting to YES	
Fomenko	Mathematical Impressions	
Gaffney . . .	Annotated Bibliography of Expository Writing in the Mathematical Sciences	
Gardner	Fads and fallacies	
Gardner	Time travel and other mathematical bewilderments	
Gardner	Mathematical carnival	2
Gardner	Mathematical circus	
Gardner	New mathematical diversions	2
Gardner	Mathematical puzzles & diversions	
Gilbert	The wohascum county problem book	
Gleason	Putnam competition 1938-1964	
Graham	ingenious mathematical problems and methods	
Greenberg	Euclidean and non-euclidean geometry. Development and history	
Grossman	Groups and Their Graphs	

Hadamard	The psychology of invention in the mathematics field	
Halmos	Problems for mathematicians young and old	
Hawking	God Created the Integers	
Hoffman	Archimede's revenge. The challenge of the unknown. The joys and perils of mathematics.	
Hofstadter	I am a strange loop	
Hogben	Mathematics for the Million: How to Master the Magic of Numbers	2
Honsberger	Mathematical Gems I	
Honsberger	Mathematical Gems III	
Hubbard	The world according to wavelets	
Hunter	Mathematical difersions	
Huntley	The divine proportion	
Kadesch	Math Menagerie	
Kahn	Effective Studying and Learning	
Kaplan	The art of the infinite. The pleasures of mathematics	
Kasner	Mathematics and imagination	
Kasting	How to find a habitable planet	
Kaufman	New world puzzless	
Kazarinoff	Geometric inequalities	
Kiltinen	Oval track and other permutation puzzles and just enough group theory to solve them	
Kitcher	The Nature of Mathematical Knowledge	
Klee	Old and new unsolved problems in plane geometry and number theory	
Klein . . .	Famous Problems	
Kline	Mathematics and the Search for Knowledge	
Kline	Why Johnny Can't Add: The Failure of the New Math	
Korovkin	Inequalities	
Kostovskii	Geometrci constructions using compasses only	
Korzybski	Science and Sanity: An Introduction to Non-Aristotellian Systems and General Semantics	
Kraitchik	Mathematical Recreations	
Kramer	The main stream of mathematics	
Kuhn	The Structure of Scientific Revolutions	2
Levi	The golden ratio	
Lieber	The Education of T.C. Mits	
Littlewood	Miscellany	
Lozansky . . .	Winning Solutions	

Makanin . . .	Eight Lectures Delivered at the International Congress of Mathematicians in Helsinki	
Nagel . . .	Godel's Proof	
NRC	Modeling and simulation	
NTCM	The growth of mathematical ideas. Grades K-12	
Olds	Continued Fractions	
Ore	Graphs and Their Uses	
O'Shea	the magic numbers of the professor	
O'Shea	Poincare conjecture	see history
Parker	She Does Math!	
Parsons	Philosophy of math in 20th century	
Paulos	Innumeracy: Mathematical Illiteracy and Its Consequences	
Paulos	Beyond Numeracy: Ruminations of a Numbers Man	
Paulos	A mathematician plays the stock market	
Pedoa	The gentle art of mathematics	
Penrose	Fashion, Faith, and Fantasy in the New Physics of the Universe	
Penrose	The Road to Reality: A Complete Guide to the Physical Universe	
Peterson	The mathematical tourist. Snapshots of modern mathematics	
Pollard	A Mathematical Prelude to the Philosophy of Mathematics	
Polya	How to Solve It	3
Polya	Induction and Analogy in Mathematics	
Polya	Patterns of Plausible Inference	
Polya	Mathematics in sciences	
Rademacher	The enjoyment of mathematics	
Rapaport	Hungarian problem book I	
Rapaport	Hungarian problem book II	
Rapaport	Hungarian problem book III	
Reingold	Calendar calculations	
Rifkin	Entropy	
Salkind	The MAA problem book. I	
Salkind	The MAA problem book. 2	
Salkind	The contest problem book. I	
Salkind	The contest problem book. 2	
Salny	The MENSA. Words, games, puzzles, oddities	
Sawyer	What is calculus about?	

Sawyer	Mathematician's delight	2
Sawyer	Prelude to mathematics	
Shasha	Codes, puzzles, and conspiracy	
Shepherd	Mazes and labyrinths book of puzzless	
Solow	How to Read and Do Proofs	
Shashkin	Fixed Points	
Simon and Schuster	The World of Mathematics Vol. 1	
Simon and Schuster	The World of Mathematics Vol. 2	
Simon and Schuster	The World of Mathematics Vol. 3	
Simon and Schuster	The World of Mathematics Vol. 4	
Singh	Great ideas of modern mathematics	
Skilling	Teaching: Engineering, Science, Mathematics	
Smogorzhevskii	The ruler in geometrical constructions	
Smullyan	Alice in puzzle-land	
Smullyan	To mock a mockingbird	
Smullyan	Forever undecided	
Stabler	Introduction to Mathematical Thought	
Steen	Mathematics Today: Twelve Informal Essays	
Steen	Mathematics tomorrow	
Stein	Mathematics: The Man-Made Universe	2
Stewart	Life's Other Secret: The New Mathematics of the Living World	
Stewart	From Here to Infinity	
Summers	Test your logic	
Tao	Compactness and contradiction	
Teller	Conversations on dark secrets of physics	
Tikhomirov	Stories About Maxima and Minima	
Tietze	Famous problems of mathematics	
Trigg	Mathematical quickies	
Ulam	Problems In Modern Mathematics	
Uspenski	Pascal's Triangle	
Uspenskii	Some applicatiuons of mechanics to mathematics	
Vleck . . .	Lectures on Mathematics	
Voqt	Road to survival	2
Vorob'ev	Fibonacci numbers	
Wail	Creative mathematics	
Weyl	Symmetry	
Wimbish	Readings for Mathematics: A Humanistic Approach	2

Yaqlom	Convex figures	
Youden	Experimentation and measurement	

0	History. Biographies. Festschrifts, Collected/Selected papers.	
Author/Editor	Title	# copies
Abrahamse	Mathematical papers	
Aczel	Pendulum . Lon Foucault and triumph of science	
Ahrens	Mathematiker-Anekdoten	
Archibald	A.M.S Semicentennial Publications I: History	
Archibald	A.M.S Semicentennial Publications II: Addresses	2
Artemiadis	History of mathematics. From a mathematician's vantage point	
Avramov (Ed)	Collected papers in honor of P. Griffith	
Becvarova	Karl Lowner and His Student Lipman Bers – Pre-war Prague Mathematicians	
Bell	Development of Mathematics	
Bell	Men of mathematics	
Birkhoff	G.D. Birkhoff, Collected Papers Volume I	2
Birkhoff	G.D. Birkhoff, Collected Papers Volume II	2
Birkhoff	G.D. Birkhoff, Collected Papers Volume III	2
Bochner	The role of mathematics in the rise of science	
Boyer	A history of mathematics	
Bressoud	Calculus reordered. A history of big ideas	
Browder	Mathematical Developments Arising from Hilbert Problems I	
Browder	Mathematical Developments Arising from Hilbert Problems II	
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Calinger	Classics of mathematics	
Cantor	Contributions to theory of transfinite numbers	
Closs	Native american mathematics	
Cooke	Mathematicians. An outer view of the inner world	
Cooke	The history of mathematics. A brief course	
Coolidge	A History of Conic Sections	
Crandall	Algorithms reflections. Collected works	
Crowe	A History of Vector Analysis	
Dick	Contemporary Comp. Math. 80 th birthday Sloan	
Dumbaugh	Emil Artin and Beyond - Class Field Theory and L-Functions	
Edwards	The Historical development of the Calculus	
Einstein	Ideas and Opinions	

Einstein	Selections from thr Principle of Relativity	
Einstein	The Collected Papers of Albert Einstein Volume 14 (English)	
Einstein	The Collected Papers of Albert Einstein Volume 14 (German)	
Euler	Elements of Algebra	
Eving	Paul Halmos. Celebrating 50 years in mathematics	
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Feller	William Feller Selected Papers II	
Feynman	Surely You're Joking, Mr. Feynman!	
Fibonacci	The book of squares	
Gabbay	Handbook of the History of Logic Volume 6 Sets and Extensions in the Twentieth Century	
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Goldstine	The Computer from Pascal to von Neumann	
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Griffiths	Selected Works of Phillip A. Griffiths with Commentary Part 5 Differential Geometry and Hodge Theory (1983-2014)	
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Ifrah	From one to zero. Universal history of numbers	
Kantha	An Einstein Dictionary	
Katz	Sourcebook in the Mathematics of Medieval Europe and North Africa	
Katz	A history of mathematics	
Klein	Mathematical thought from ancient to moder times. v.1	
Klein	Mathematical thought from ancient to moder times. v.2	

Klein	Mathematical thought from ancient to moder times. v.3	
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May	The Mathematical Associations of America: Its First Fifty Years	
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Milnor	Collected Papers of John Milnor: VI, Dynamical Systems (1953-2000)	
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	renewing US mathematics	
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Seshadri	Collected Papers of C.S. Seshadri Volume 2: Schubert Geometry and Representation Theory	
Sieg	Hilbert Programs and Beyond	
Singh	Fermat's enigma	
Smith	A History of Mathematics in America Before 1900	
Smith	History of Mathematics Volume II	
Smith	Numbers and Numerals	
Smith	A source book in mathematics	
Struik	A source book in mathematics. 1200-1800	
Struik	A concise history of mathematics	
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Einstein	Selections from thr Principle of Relativity	
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Euler	Elements of Algebra	
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Fefferman	Advances in Analysis: The Legacy of Elias M. Stein	
Feller	William Feller Selected Papers I	
Feller	William Feller Selected Papers II	
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Griffiths	Selected Works of Phillip A. Griffiths with Commentary Part 6 Algebraic Cycles (2003-2007)	
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Havil	John Napier Life, Logarithms and Legacy	
Hilbert	David Hilbert's Lectures on the Foundations of Arithmetic and Logic 1917-1933	
Ifrah	From one to zero. Universal history of numbers	
Kantha	An Einstein Dictionary	
Milnor	Collected Papers of John Milnor: VI, Dynamical Systems (1953-2000)	
Milnor	Collected Papers of John Milnor: VII, Dynamical Systems (1984-2012)	
	Geometry and analysis. Patodi festshrift	
Reid	Hilbert	
Rudin	The way I remember it	
Schoenberg	Selected papers, V1	
Schoenberg	Selected papers, V2	
Seshadri	Collected Papers of C.S. Seshadri Volume 1: Vector Bundles and Invariant Theory	
Seshadri	Collected Papers of C.S. Seshadri Volume 2: Schubert Geometry and Representation Theory	
Sieg	Hilbert Programs and Beyond	
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Tits	Jacques Tits Oeuvres Collected Works Volume III	
Tits	Jacques Tits Oeuvres Collected Works Volume IV	
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Varadarajan	Selected Papers of V.S. Varadarajan Volume 3: Analysis and Probability Reflections and Reviews	
Walsh	Joseph L. Walsh: Selected Papers	
Wang	Reflections on Kurt Godel	

03 Logic. Set theory. Foundations 1a

Author	Title	Copies
Appel	Alan Turing's Systems of Logic	
Artemov	Justification logic	
Aschenbrenner	Asymptotic differential algebra and model theory of transseries	
Baldwin	Model theory and the philosophy of math practice	
Barendregt	Lambda Calculus With Types	
Barwise, J	Handbook of Mathematical Logic Vol I	
Barwise, J	Handbook of Mathematical Logic Vol II	
Barwise, J	Handbook of Mathematical Logic Vol III	
Barwise, J	Handbook of Mathematical Logic Vol IV	
Bimbo	Proof Theory Sequent Calculi and Related Formalisms	
Bishop	Foundations of Constructive Analysis	
Breuer	The Theory of Sets	2
Caicedo	Models, Algebras, and Proofs	
Chubb	Logic and Algebraic Structures in Quantum Computing	
Cummings	Appalachian Set Theory	
Girard	The Blind Spot Lectures on Logic	
Dickman	Spectral spaces	
Halmos	Lectures on boolean algebras	
Halmos	Naive Set Theory	2
Ionescu	Topics in the theory of lifting	
Kamke	Theory of Sets	
Kechris	Wadge Degrees and Projective Ordinals	
Kechris.	Ordinal Definability and Recursion Theory	
Kinsolving	Set Theory and the Number Systems	
Kleene,	Introduction to Metamathematics	
Kollar	Singularities of The Minimal Model Program	
Langer	An introduction to symbolic logic	
Lipschutz	Theory and Problems of Set Theory and Related Topics	
Lyndon	Notes on Logic	
Marker	Lectures on Infinitary Model Theory	
Mates	Elementary Logic	
Mendelson	Introduction to mathematical logic	

Miller	Programming with Higher-Order Logic	
Morley.	Studies in Model Theory Volume 8	
Nederpelt	Type Theory and Formal Proof an Introduction	
Novak	Tractability of Multivariate Problems Volume III: Standard Information for Operators	
O'Leary	The Structure of Proof With Logic and Set Theory	
Rosenbloom	The Elements of Mathematical Logic	
Selby	Sets Relations Functions an Introduction	
Sheppard	The Logic of Infinity	
Stoll	Set Theory and Logic	2
Suppes	Introduction to Logic	
Suppes	Axiomatic set theory	
Tent	A Course in Model Theory	
Ullman	Formal Languages and Their Relation to Automata	
Zehna.	Elements of Set Theory	

5	Combinatorics	1a
Author	Title	#
Akiyama	Three Developing Topics in Graph Theory	
Alavi	Graph Theory, Combinatorics, and Applications Vol. I	2
Alavi	Graph Theory, Combinatorics, and Applications Vol. II	
Alavi	Combinatorics, Graph Theory, and Algorithms	
Alavi	Graph Theory with Applications to Algorithms and Computer Science	
Alavi	Combinatorics, Graph Theory, and Algorithms Volume I	
Andrasfai	Graph theory: flow, matrices	
Bachmann	n-Gons	
Balakrishnan	Combinatorics	
Balakrishnan	Graph Theory	
Ball	Finite Geometry and Combinatorial Applications	
Beckenbach	Applied Combinatorial Mathematics	
Behzad	Introduction to the Theory of Graphs	
Behzad	Graphs & Digraphs	
Berman	Introduction to Combinatorics	
Berge	Principles of Combinatorics	
Beth	Design Theory	
Blackburn	Surveys in Combinatorics 2013	
Bogart	Introductory combinatorics	
Bollobas	Extremal Graph Theory with Emphasis on Probabilistic Methods	
Bollobas	Advances in Graph Theory	
Bollobas	Probabilistic Combinatorics and Its Applications	
Bona	Combinatorics of Permutations	
Bradley	An Introduction to Combinatorial Analysis	
Brualdi	Introductory Combinatorics	
Buckley	A Friendly Introduction to Graph Theory	
Cameron	Designs, Graphs, Codes and their Links	
Chapoton	Algebraic combinatorics, v.1	
Chapoton	Algebraic combinatorics, v.2	
Chartrand	Applied and Algorithmic Graph Theory	

Claesson	Surveys in Combinatorics 2017	
Cook	Polyhedral Combinatorics	
Cornuejols	Combinatorial Optimization: Packing and Covering Lecture Notes	
De Bruyn	An Introduction to Incidence Geometry	
Deo	Graph Theory with Applications to Engineering and Computer Science	
Diestel	Graph Theory	
Dold	The Many Facets of Graph Theory	
Dold	Theory and Applications of Graphs	
Dold	Graph Theory and Applications	
Even	Algorithmic Combinatorics	
Erdos	Combinatorial Theory and its Applications I	
Erdos	Combinatorial Theory and its Applications II	
Erdos	Combinatorial Theory and its Applications III	
Flament	Applications of Graph Theory to Group Structure	
Fishburn	Interval Orders and Interval Graphs	
Fulkerson	Studies in Graph Theory, Part I	
Fulkerson	Studies in Graph Theory, Part II	
Gordon	Matroids: A Geometric Introduction	
Graver	Combinatorics with Emphasis on the Theory of Graphs	
Green	Combinatorics of Minuscule Representations	
Grimaldi	Discrete and Combinatorial Mathematics: An Applied Introduction	2
Hall	Combinatorial Theory	2
Harris	Graph Theory and Its Applications	
Holton	A First Look at Graph Theory	
Kanovei	Canonical Ramsey Theory on Polish Spaces	
Kemeny	Introduction to Finite Mathematics	
Kemeny	Finite mathematics	
Korte	Combinatorial Optimization: Theory and Algorithms	
Lai	Combinatorics & Optimization: Nested Graph Family Decompositions	
Lauri	Topics in Graph Automorphisms and Reconstruction	
Lovasz	An Algorithmic Theory of Numbers, Graphs and Convexity	

Marcus	A Survey of Finite Mathematics	
Marshall	Applied Graph Theory	
McDonough	Combinatorics Proceedings of the British Combinatorial Conference 1973	
Merris	Combinatorics	2
Motzkin	Proceedings of Symposia in Pure Mathematics Volume XIX	
Murota	Systems Analysis by Graphs and Matroids	
Narayana	Lattice Path Combinatorics with Statistical Applications	
Niven	Mathematics of Choice: How to Count Without Counting	
Papadimitriou	Computational Complexity	
Percus	Combinatorial Methods	
Pereira	An Invitation to Web Geometry	
Polya	Notes on Introductory Combinatorics	
Price	Graphs and Networks	
Roberts	Discrete Mathematical Models	
Roberts	Graph Theory and Its Applications to Problems of Society	
Rosenstiehl	Theory of Graphs International Symposium	
Rota	Studies in Combinatorics Volume 17	
Ryser	Combinatorial Mathematics	2
Sane	Combinatorial Techniques	
Satyanarayana	Near Rings, Fuzzy Ideals, and Graph Theory	
Schwartz	The plaid model	
Sirag	ADEX Theory: How the ADE Coxeter Graphs Unify Mathematics and Physics	
Stanley	Enumerative Combinatorics Volume 1	2
Stanley	Enumerative Combinatorics Volume 2	
Stanley	Combinatorics and Commutative Algebra	
Stanton	Constructive Combinatorics	
Straight	Combinatorics: An Invitation	
Trudeau	Introduction to Graph Theory	
Truemper	Matroid Decomposition	
Wallis	Combinatorics: Room Squares, Sum-Free Sets, Hadamard Matrices	
Watkins	Graphs: An Introductory Approach	
West	Introduction to Graph Theory	
Zhang	Circuit Double Cover of Graphs	

Ziegler	Lectures on Polytopes	
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06, 08	Algebra	1a
Author	Title	#
Abbott	Sets Lattices and Boolean Algebras	
Abbott	Trends in Lattice Theory	
Albert	Fundamental concepts of higher algebra	
Anderson	A First Course in Abstract Algebra Rings, Groups and Fields	
Artin	Algebra	
Barnard	Higher Algebra	3
Barnes	Abstract Algebra An Introduction	
Benson	Advances in Representation Theory of Algebras	
Birkhoff	Lattice Theory V.XXV	
Birkhoff	A survey of modern algebra	2
Birkhoff	A Brief Survey of Modern Algebra	
Blanton	Modern College Algebra	
Bocher	Introduction to Higher Algebra	
Borofsky	Elementary Theory of Equations	
Chu	Jordan Structures in Geometry and Analysis	
Chrystal	Algebra	
Cohn	Universal Algebra	
Deng	A Double Hall Algebra Approach to Affine Quantum Schur-Weyl Theory	
Dickson	Algebras and Their Arithmetics	
Dubisch	Introduction to Abstract Algebra	
Dudek	Algebras of Multiplace Functions	
Fehr	Algebra Course 1	
Fine	Introduction to Abstract Algebra	
Gallian	Contemporary Abstract Algebra	6
Gray	A Radical Approach to Algebra	
Gobel	Approximations and Endomorphism Algebras of Modules V.1	
Gobel	Approximations and Endomorphism Algebras of Modules V.2	
Goodman	Algebra: abstract and concrete	
Gratzer	Lattice Theory First Concepts and Distributive Lattices	
Gratzer	Universal Algebra	
Grossman	Groups and their graphs	
Hart	A Second Course in Algebra	
Hu	Elements of Modern Algebra	
Herstein	Topics in Algebra	4
Hungerford	Algebra	3
Hungerford	Abstract Algebra An Introduction	

Isaacs	Algebra. Graduate course	
Jacobs	Introduction to Coalgebra Towards Mathematics of States and Observation	
Judson	Abstract Algebra Theory and Applications	2
Kelley	Introduction to Modern Algebra	
Lam	A first course on non-comutative rings	
Lang	Algebra	2
Lanski	Concepts in Abstract Algebra	2
Lax	Modern Algebra and Discrete Structures	
Levey	The Algebra of Abu Kamil	
Mazorchuk	Lectures on Algebraic Categorification	
McCoy	Introduction to modern algebra	2
Mostow	Fundamental structures of algebra	3
Nagpaul	Topics in Applied Abstract Algebra	2
Nicodemi	An Introduction to Abstract Algebra	
Rotman	A First Course in Abstract Algebra with Applications	
Schlichenmaier	Krichever-Novikov Type Algebras Theory and Applications	
Sethuraman	Rings, field, and vector spaces	
Sides	Reviews and examinations in algebra	
Skowronski	Representations of Algebras and Related Topics	
Skowronski	Frobenius Algebras I Basic Representation Theory	
Strade	Simple Lie Algebras over Fields of Positive Characteristic III. Completion of the Classification	
Uspensky	Theory of Equations	
Van Der Waerden	Modern Algebra V.1	2
Vasconcelos	Arithmetic of blowup algebras	
Warner	Modern Algebra V. 1	
Warner	Modern Algebra V. 2	
Weiss	Higher Algebra for the Undergraduate	
Whitesitt	Principles of Modern Algebra	1

11	Number theory	1a
Author	Title	#
Amir-Moez	Classes residues et figures avec ficelle	
??	Arithmetic groups and authomorphic functions (in Russian)	
Apostol	Introduction to analytic number theory	
Artin	Algebraic numbers and algebraic functions	
Artin	Class field theory	
Bachman	Introduction to p-adic numbers and valuation theory	
Badziahin	Dynamics and analytic number theory	
Bugeaud	Linear Forms in Logarithms and Applications	
Burr	Unreasonable effectiveness of number theory	
Coates	The Bloch-Kato conjecture for the Riemann zeta-function	
Coates	Non-abelian fundamental groups and Iwasawa theory	
Corvaja	Appl. Of dioph. Approximation to integral points and transcendence	
Diamond	Authomorphic forms and Galois representations, v. 1	2
Diamond	Authomorphic forms and Galois representations, v. 2	
Dickson	Introduction to the theory of numbers	
Dieulefait	Arithmetic and geometry	
Edwards	Galois theory	
Eichler	Introduction to the theory of algebraic numbers and functions	
Evertse	Unit equations and Diophantine number theory	
Halter-Koch	Quadratic irrationals	
Faber	Geometry and arithmetic	
Flicker	Arthur's invariant trace formula and comparison of inner forms	2
Guillot	Local class field theory	
Guy	Unsolved problems in number theory	
Jones	The arithmetic theory of quadratic forms	
Kraft	Elementary number theory	
LeVeque	Elementary number theory	
Long	Elementary Introduction to Number Theory	
Masser	Auxiliary Polynomials in Number Theory	
Morris	Introduction to arithmetic groups	
Mullen	Handbook of finite fields	
Niven	An introduction to the theory of numbers	2
Niven	Irrational numbers	2

Ogilvy	Excursions in number theory	3
Queffelec	Diophantine Approximation and Dirichlet Series	
Ralph	Arithmetic differential operators over p-adic integers	
Roberts	The real number system in an algebraic setting	
Robinson	Numbers and ideals	
Rotman	Galois theory	
Serre	Lectures on $N X(p)$	2
Serre	Local fields	
Silverman	Moduli spaces and arithmetic dynamics	
Spisani	General theory of directed numbers	
Stark	An introduction to number theory	
Sutton	Arithmetic	
Titchmarsh	The zeta-function of Riemann	
Titchmarsh	The theory of the Riemann zeta-function	
Weil	Number theory	
Weiss	Algebraic number theory	

11	<u>Cryptography</u>	1a
Author	Title	Copies
Denning	Cryptography and data security	2
Garrett	Making and breaking codes. An introduction to cryptography	
Kippenhahn	Code breaking. A history and exploration	
van Lint	Introduction to coding theory	
Mollin	An introduction to cryptography	
Pellikaan	Codes, cryptography, and curves with computer algebra	
Schneier	Applied cryptography	
Talbot	Complexity and cryptography. An introduction	

<u>1</u>	Collections, proceedings	4b
Author/Editor	Title	# copies
Abbot (Ed)	The Chauvenet papers, v1	
Abbot (Ed)	The Chauvenet papers, v2	
	Abstract spaces and approximation	
AMS	Summer institute on set theoretic topology	
	Approximation theory, 2 nd edmonton conference	
	Approximation theory II	
	Approximation theory III	
	Approximation theory IV	
	Approximation theory V	2
	Approximation theory VI, v.1	2
	Approximation theory VI, v. 2	2
	Approximation theory VIII v. 1	
	Approximation theory VIII v. 2	
	Approximation theory IX, v. 1 theoretical aspects	
	Approximation theory IX, v. 2, Computational aspects	
	Approximation theory X Abstract and classical analysis	
	Approximation theory X Wavelets, splines, applications	
	Approximation theory XI	
	Approximation theory XII	
Baake	Spectral structures and topological methods	
Baake	Probabilistic structures and evolution	
Beqehr	progress in analysis, v. 1	
Beqehr	progress in analysis, v. 2	
Bhatia	Connected at Infinity II: A Selection of Mathematics by Indians	
Bonifant	Frontiers in Complex Dynamics	
Bottazzini	Hidden Harmony – Geometric Fantasies	
	Chairing math department of the 1990s	
Chui (Ed)	Multivariate approximation theory IV	

Cucker	Foundations of comp. Math. Minneapolis 2002	
	ICIAM 07. Invited lectures	
	ICM 70, v.1	
	ICM 70, v.2	
	ICM 70, v.3	
	ICM 66	
	ICM 78, v.1	
	ICM 78, v.2	
	ICM 86, v.2	
	ICM 94, v.1	
	ICM 94, v.2	
	ICM 1999, v.1	
	ICM 1999, v.2	
	Iwota2010	
Saranghi	Bridges conference 1998	
Saranghi	Bridges conference 2010	
Schulze (Ed)	PDEs, Holzau 1988	
	Spectral theory symp. Dublin 1974	
	Symposia mathematica.v. XX	
	Topics in modern operator theory. 5 th Int. Conf	
Ji ...	Fifth International Congress of Chinese Mathematicians Part 1	
Ji ...	Fifth International Congress of Chinese Mathematicians Part 2	

18	Category theory	1b
	Homological Algebra	
AUTHOR	TITLE	CO PY
Benson	representations and cohomology v. 2	
Cisinski	Hogher categories and homotopical algebra	
Dundas	Local Structure of Algebraic K-Theory	
Freud	Abelian categories	
Gurski	Coherence in Three Dimensional Category Theory	
Hilton	A course in homological algebra	
Hu	Introduction to homological algebra	
Leinster	Basic category theory	
Lyubeznik	Local cohomology and its applications	
Mac Lane	Categories for the working mathematician	
Mac Lane	Homology	
Riehl	Categorical Homotopy Theory	
Serre	Lectures on $N_x(p)$	
Serre	Galois cohomology	
Serre	Local fields	
Simpson	Homotopy Theory of Higher Categories	
Spivak	Category Theory for the Sciences	
Yekutieli	Derived categories	

12	<u>Rings, fields, ideals</u>	1b
Fontana	Factoring Ideals in Integral Domains	
Gilmer	Multiplicative Ideal Theory Part 1	
Gilmer	Multiplicative Ideal Theory Part 2	
Herstein	Rings with Involution	
Jacobson	The Theory of Rings	3
Laam	Lectures on Modules and Rings	
Lam	A First Course in Noncommutative Rings	
Lam	Exercises in Classical Ring Theory	
McCoy	The Theory of Rings	
McCoy	Rings and Ideals	2
Skowronski	Frobenius Algebra II	2
13	<u>Commutative Algebra</u>	
Fontana	Factoring Ideals in Integral Domains	
Francisco	Progress in Commutative Algebra 1	
Francisco	Progress in Commutative Algebra 2	
Magid	The Separable Galois Theory of Commutative Rings	
Zariski	Commutative Algebra V1	3
Zariski	Commutative Algebra V2	2
14	<u>Algebraic Geometry</u>	
Brambila-Paz	Moduli Spaces	
Brodmann	Local Cohomology	
Buszynsky	Schubert varieties, ...	
Campillo	Valuation Theory in Interaction	
Caporaso	Current Developments in Algebraic Geometry	
Carlson	Period mappings	
Cattani	Hodge Theory	
Corvaja	Integral Points on Algebraic Varieties – An Introduction to Algebraic Geometry	
Eisenbud	Commutative Algebra and Noncommutative Algebraic Geometry I	
Eisenbud	Commutative Algebra and Noncommutative Algebraic Geometry II	

Eisenbud	Commutative Algebra and Noncommutative Algebraic Geometry II	
Fulton	Categorical Framework for the Study of Singular Spaces (Russian)	
Hirzebruch	Topological Methods in Algebraic Geometry (Russian)	
Hormann	The Arithmetic Volume of Orthogonal Shimura Varieties	
Jenner	Rudiments of algebraic geometry	
Kawamata	Derived Categories in Algebraic Geometry	
Kerr	Recent Advances in Hodge Theory	
Lang	Introduction to Algebraic Geometry	
Lang	Arithmetic Compactifications of PEL-Type Shimura Varieties	
Moriwaki	Arakelov Geometry	
Papadopoulos	Handbook of Teichmuller Theory III	
Papadopoulos	Handbook of Teichmuller Theory IV	
Papadopoulos	Handbook of Teichmuller Theory V	
Papadopoulos	Handbook of Teichmuller Theory VI	
Pragacz	Contributions to Algebraic Geometry	
Skorobogotov	Torsors, Etale Homotopy and Applications to Rational Points	
Stix	Rational Points and Arithmetic of Fundamental Groups	
Voisin	Chow Rings, Decompositions of the Diagonal, and the Topology of Families	
Walker	Algebraic curves	
15	<u>Linear Algebra. Matrices</u>	
Aitken	Determinants and Matrices	
Akivis	An Introduction to Linear Algebra and Tensors	
Anton	Applications of Linear Algebra	
Arangala	Exploring Linear Algebra	
Avrachenkov	Analytic Perturbation Theory and its Applications	
Axler	Linear algebra done right	

Bhattacharya a	In the Matrix Mould	
Boullion	An Introduction to the Theory of Generalized Matrix Invertibility	
Bourne	Vector Analysis	
Bowen	Introduction to tensors and vectors, v. !	2
Brand	Vector and Tensor Analysis	
Brown	A Second Course in Linear Algebra	
Bronson	Matrix Operations	
Cooperstein	Advanced Linear Algebra	
Cullen	Matrices and Linear Transformations (Second Edition)	
Eves	Elementary Matrix Theory	
Forsythe	Computer Solution of Linear Algebraic Systems	
Frazer	Elementary Matrices	
Friedberg	Linear Algebra	
Gel'fand	Lectures on Linear Algebra	
Gilbert	Elements of Linear Algebra	
Hague	An Introduction to Vector Analysis	
Hsu	Vector Analysis	
Isaak	Linear Algebra	
Jain	Linear algebra. Interactive approach	
Johnson	Vector Algebra	
Kaplansky	Linear Algebra and Geometry	
Kirkland	Group Inverses of M-Matrices and Their Applications	
Kolman	Elementary Linear Algebra	
kreider	an Introduction to Linear analysis	
Lemmens	Nonlinear Perron-Frobenius Theory	
Leon	Linear Algebra with Applications	4
Lipschutz	Linear Algebra	2
MacDuffee	Vectors and Matrices	2
Marcus	Basic Theorems in Matrix Theory	
Martin	Vector and Tensor Analysis	
McConnell	Applications of Tensor Analysis	
Michal	Matrix and Tensor Calculus	
Nering	Linear algebra & Matrix theory	
Newell	Vector Analysis	
Pearlis	Theory of Matrices	
Penney	Linear algebra	
Poole	Linear algebra. Modern Introduction	
Samuelson	An Introduction to Linear Algebra	

Shields	Elementary Linear Algebra (Third Edition)	
Shilov	Linear Algebra	
Shilov	An Introduction to the Theory of Linear Spaces	
Smith	Linear Algebra (Second Edition)	
Spiegel	Vector Analysis	
Stoll	Linear Algebra and Matrix Theory	
Swokowski	Matrices and Determinants	
Thrall	Vector spaces and matrices	
Tromba	Vector Calculus	
Trotter	Multivariable Mathematics – Linear Algebra Calculus Differential Equations (Second Edition)	
Zhang	Matrix analysis and applications	
16	Associative rings and algebras	
McCog	Rings and Ideals	

20	<u>Groups, representations</u>	1b
AUTHOR	TITLE	COPY
Adams	lectures on Lie groups	2
Arnal	Representations of solvable Lie groups	
Benson	representations of elementary abelian p-groups	
Borel	Linear algebraic groups	
Borel	Seminar on transformation groups	
Bray	The Maximal Subgroups of the low dimensional Finite Classical Groups	
Breuillard	Thin Groups and Superstrong Approximation	
Brieon	lectures on the structure of algebraic groups and geometric applications	
Burnside	Theory of groups of finite order	
Campbell	Groups. St Andrews 2017	
CarMichael	Groups of Finite Order	2
Cecherini-Silberstein	Representation Theory and Harmonic Analysis of Wreath Products of Finite Groups	
Chari	A guide to quantum groups	
Chiswell	A Universal Construction for Groups Acting Freely on Real Trees	
Conrad	Pseudo-reductive Groups	
Curtis	Representation Theory of Finite Groups and Associative Algebras	
Dold	Lie Group Representations III	
Flicker	Arthur's Invariant Trace Formula and Comparison of Inner Forms	
Ginzburg	Algebraic Theory of Automata	
Gorenstein	Finite groups	
Hall	The Theory of Groups	
Hermann	Geometric Structures in Nonlinear Physics	
Hermann	Constrained Mechanics and Lie Theory	
Hermann	Lie-Cartan-Ehresmann Theory	
Husain	Introduction to Topological Groups	

Isaacs	Character theory of finite groups	
Ivanov	The Mathieu groups	
Jacobson	Lie algebras	3
Kac	Infinite dimensional Lie algebras	
Kaniuth	Induced representations of locally compact groups	
Kassel	Quantum groups	
Katok	Rigidity in Higher Rank Abelian Group Actions	
Kerber	The representation theory of the symmetric group	
Ledermann	Introduction to the Theory of Finite Groups	
Linkelman	The block theory of finite group algebras v. 1	
Linkelman	The block theory of finite group algebras v. 2	
Meinrenken	Clifford Algebras and Lie Theory	
Milne	Algebraic groups	
Muhlherr	Descent in Buildings	
Navarro	Character theory and McKay conjecture	
Praeger	Permutation groups and Cartesian decompositions	
Rotman	The Theory of Groups: An Introduction	2
Sagan	The symmetric group	
Schiffler	Quiver Representations	
Schensted	On the Application of Group Theory to Quantum Mechanics	
Sengupta	representing finite groups. A semisimple introduction	
Serre	Linear representations of finite groups	
Serre	Algebraic groups and class fields	
Snobl	Classification and Identification of Lie Algebras	
Springer	Linear algebraic groups	
Koen Thas	A Course on Elation Quadrangles	
Thomas	Geometric and topological aspects of Coxeter groups and buildings	
Totaro	Group Cohomology and Algebraic Cycles	

Varadarajan	Harmonic Analysis on Real Reproductive Groups
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26	<u>Real functions measure theory</u>	1b, 2a
AUTHOR	TITLE	CO PY
Adams, Fournier	Sobolev spaces	
Aliprantis	Principles of real analysis	3
Aliprantis	Problems in real analysis. Workbook with solutions	
Anderson	Sets, Sequences and Mappings	2
Apostol	Mathematical analysis	2
Asplund	A first course in integration	
Bartle	The elements of real analysis	
Bartle	Introduction to Real Analysis	
Beals	Advanced mathematical analysis	
Beckenbach	Inequalities	
Berberian	Measure and integration	
Blank	Problems in calculus and analysis	
Boas	A Primer on Real Functions	
Borofsky	Elementary Theory of Equations	
Bourbaki	Integration, Ch. 5	
Bourbaki	Integration, Ch. 6	
Bromwich	Theory of infinite series	
Brown	An Introduction to Analysis	
Bruckner	Real analysis	
Buck	Studies on Modern Analysis	2
Bruckner	Real Analysis	
Burn	Numbers and Functions	
Courant	Differential and Integral Calculus v1	
Crowder	Topics in higher analysis	
Davidson	Real Analysis with Real Applications	
Dieudonne	Foundations of Modern Analysis	
Ditzian	Moduli of smoothness	
Erdelyi	Asymptotic expansion	2
Exner	Inside Calculus	
Ferrar	Convergence	
Fleming	Functions of Several Variables	2
Florescu	Young Measures and Compactness in Measure Spaces	
Folland	Real analysis	

Freeden	Geomathematically Oriented Potential Theory	
Freedman	Advanced calculus	
Friedman	Foundations of Modern Analysis	3
Garling	A Course in Mathematical Analysis	
Gelbaum	Counterexamples in Analysis	2
Gleason	Fundamentals of abstract analysis	
Godement	Analysis	
Goffman	Introduction to real analysis	
Goffman	Real functions	2
Goldberg	Methods of real analysis	
Graves	Theory of Functions of Real Variables	
Halmos	Measure theory	
Heider	Theoretical analysis	
Hewitt	Real and Abstract Analysis	2
Hirschman	Studies in Real and Complex Analysis	
Hobson	The Theory of Functions of a Real Variable v1	
Hobson	The Theory of Functions of a Real Variable	
Hrbacek	Analysis with Untrasmall Numbers	
Kazarinoff	Analytic inequalities	
Kirkwood	An Introduction to Anlalysis	2
Konig	Measure and Integration	
Kumar	A Basic Course in Real Analysis	
Kythe	Sinusoids	
Labarre	Intermediate mathematical analysis	
Lang	Analysis 1	
Littlewood	The elements of the theory of real functions	
Maggi	Sets of finite perimeter and geometric variational problems	
Marsden	Elementary Classical Analysis	
Monroe	Introductory Real Analysis	2
Morgan	Geometric Measure Theory	2
Nickerson	Advanced Calculus	
Pfeffer	The divergence theorem and sets of finite perimeter	
Polya, Szego	Aufgaben und Lehrsatze aus der Analysis, v. 1	
Polya, Szego	Problems and theorems in analysis, v.1	
Polya, Szego	Problems and theorems in analysis, v.2	
Perea	Topics in Critical Potential Theory	

Protter	A First Course in Real Analysis	2
Rado	Length and Area	
Ramanujan	Intermediate analysis	
Randol	An introduction to real analysis	
Reed	Fundamental Ideas of Analysis	3
Rosenlicht	Introduction to analysis	
Royden	Real Analysis	4
Rudin	Real and Complex Analysis	
Rudin	Principles of Mathematical Analysis	2
Ruckle	Modern Analysis	
Saks	Theory of the Integral	3
Salamon	Measure and Integration	
Schilling	Berstein Functions	
schramm	Introduction to real analysis	
Scott	Differential and Integral Calculus	2
Scott	Calculus of Several Variables	
Segal	Integrals and operators	
Shilov	Elementary real and complex analysis	
Shilov	Integral, measure, and derivative	
Sion	Introduction to methods of real analysis	
Smith	Primer on real analysis	
Steele	Cauchy-Schwarz master class	
Stewart	Calculus Concepts and Contexts	
Taylor	General Theory of Functions and Functions and Integration	
Taylor	Introduction to measure and integration	2
Toeplitz	The calculus, A genetic approach	
Torchinsky	Real variables	
Townsend	Introduction to Real Variables	
Wade	An introduction to analysis	2
White	Real Analysis: An Introduction	
Whittaker	A course of Modern Analysis	3
Ziemer	Modern real analysis	
Ziemer	Weakly differentiable functions	

	<u>30 Complex variables. Potential theory</u>	2a
AUTHOR	TITLE	CO PY
Ahlfors	complex analysis	2
Ash	Complex Variables	
Asmar	Applied Complex Analysis with PDEs	2
Baker	Abelian Functions	
Bieberbach	Conformal mapping	
Boas	Invitation to complex analysis	
Brown	Complex variables and applications	
Bruna	Complex Analysis	
Burkhard	Theory of Functions of a Complex Variable	
Carleson	Several problems on exceptional sets	
Cartan	Elementary theory of analytic functions	
Churchill	Complex Variables and Applications	4
Churchill	An Introduction to Complex Variables and Applications	2
Conway	Functions of One Complex Variable	3
Copson	Theory of Functions of a Complex Variable	2
Evgrafov	Analytic Functions	
Fuchs	Topics in theory of functions of one complex variable	
Gakhov	Boundary value problems	
Gamelin	Lectures on H^∞	
Garnett	Harmonic Measure	
Hallenbeck	Linear Problems and Convexity Techniques in Geometric Function Theory	
Hayman	Subharmonic functions	
Helms	Introduction to potential theory	
Henrici	Applied and Computational Complex Analysis v1	
Henrici	Applied and Computational Complex Analysis v2	
Henrici	Applied and Computational Complex Analysis v3	
Hille	Analytic function theory	
Kaplan	Introduction to Analytic Functions	
Kellogg	Foundations of Potential Theory	

Knopp	Theory of Functions Part 1	2
Knopp	Problem Book	2
Kober	Dictionary of Conformal Representations	
Krantz	Complex analysis: the geometric viewpoint	2
Lehner	A short course on authomorphic functions	
Levinson	Complex Variables	
Mackey	Lectures on theory of functions of one complex variable	
Markushevich	Theory of Functions	
Markushevich	Theory of Functions of a Complex Variable v1	
Markushevich	Theory of Functions of a Complex Variable v2	
Mathews	Complex Analysis for Mathematics and Engineering	
Needham	Visual Complex Analysis	
Nehari	Conformal Mapping	2
Poulin	Lecons d'analyse classique	
Rudin	Real and Complex Analysis	2
Saff	Fundations of complex analysis	
Sheinman	Current Algebras in Riemannian Manifolds	
Spiegel	Complex Variables	4
Springer	Riemann Surfaces	
Sternberg	Theory of Potential	
Titchmarsh	The theory of functions	
Vallee Poussin	Cours d'analyse, v. 1	
Wermer	Potential theory in the complex plane	
Weyl	The concept of a Riemann surface	
Ransford	Potential theory in the complex plane	
Volkovysky	Problems in the Theory of Functions of a Complex Variable	
Xiao	Geometric Qp Functions	

**Several complex variables and
analytic spaces**

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Author	Title	Copy
Alexakis	The Decomposition of Global Conformal Invariants	
Chern, S.S.	Complex Manifolds Without Potential Theory	
Chern, S.S.	Complex Manifold Lectures at The University of Chicago	
Defant	Dirichlet series and holomorphic functions in higher dimensions	
Folland	The Neumann problem for the Cauchy-Riemann complex	
Fornaess	Several Complex Variables: Proceedings of The Mittag-Leffler Institute, 1987-1988	
Greiner	Estimates For The Neumann Problem	
Griffiths	Entire holomorphic mappings	
Guedj	Degenerate Complex Monge-Ampere Equations	
Gunning	Lectures on complex analytic varieties	
Gunning	On uniformization of complex manifolds	
Gunning	Lectures on fiber bundles over Riemann surfaces	
Gunning & Rossi	Analytic functions of SCV	
Komatsu	Analysis and Geometry in Several Complex Variables	
Krantz	Function Theory of Several Complex Variables	
McDonald	A class of Toeplitz operators on balls in C^n	
Rudin, Walter	Function Theory in Polydiscs	2
Rudin, Walter	Function theory in the unit ball of C^n	
Saint-Gervais	Uniformization of Riemann Surfaces Revisiting a Hundred-Year-Old Theorem	
Stoll, Manfred	Harmonic and Subharmonic Function Theory on the Hyperbolic Ball	
Wermer	Banach algebras and SCV	

33	<u>Tables, Encyclopaedias, Special functions</u>	5a
Author	Title	Copies
	Tables	
Abramovich & Stegun	Handbook of Mathematical Functions With Formulas, Graphs, and Mathematical Tables	
Allen	Six-Place Tables	
Comrie	Barlow's Tables	
CRC	Standard Mathematical Tables	
Dwight	Tables of Integrals and Other Mathematical Data	2
Dwight	Handbook of mathematical tables and formulas	
Hodgeman.	Mathematical Tables From Handbook of Chemistry and Physics	
Jahnke	Tables of Functions With Formulae and Curves	2
Klippel	Standard Mathematical Tables	
Graesser	Understanding The Slide Rule	
Milne-Thomson	Jacobian Elliptic Function Tables	
Moll	Special Integrals of Gradshteyn and Ryzhik	
Selby	Standard mathematical tables	
Selfridge	A Table of The Incomplete Elliptic Integral of The Third Kind	
Peirce	A Short Table of Integrals	3
Pilant	Standard Mathematical Tables	
Stewart	How to integrate it. A practical guide	
Watkins	Useful mathematical and physical formulae	
	Encyclopaedias	
	Encyclopedic dictionary of mathematics v.1	
	Encyclopedic dictionary of mathematics v.2	
	Mathematics. Kleine Enzyklopaedie	
Newman	The universal encyclopedia of mathematics	
	Special functions	
Bowman	Introduction to Bessel Functions	

Gray, A.	A Treatise on Bessel Functions and Their Applications to Physics	
Lebedev	Special functions and their applications	
Magnus	Formulas and Theorems for The Special Functions of Mathematical Physics	
Miller	Encyclopedia of mathematics: special functions	
Nahin	Inside Interesting Integrals	
Shervatov	Hyperbolic functions	
Srivastava	Zeta and q-Zeta Functions and Associated Series and Integrals	

	34 ODEs	2a
Author	Title	Copies
Agnew	Differential Equations	
Bateman	Differential Equations	
Birkhoff	Ordinary Differential Equations	2
Blanchard	Differential Equations	2
Boyce	Elementary Differential equations and Boundary Value Problems	2
Bronson	Differential Equations	
Bruno	Painlev	
Coddington	Theory of Ordinary Differential Equations	
Cohen	Differential Equations	
Conkwright	Differential Equations	
Davis	Introduction to Nonlinear Differential and Integral Equations	
Djebali	Solution Sets for Differential Equations and Inclusions	
Dobrushikin	Applied Differential Equations	
Edwards	Differential Equations and Boundary Value Problems	
Farlow	Differential Equations & Linear Algebra	
Hale	Functional differential equations	
Hartman	ODEs	
Henrici	Discrete Variable Methods in Ordinary Differential Equations	
Hietarinta	Discrete Systems and Integrability	
Ince	Ordinary Differential Equations	3
John	Ordinary Differential Equations	
Kaplan	Elements of differential equations	
Lefschetz	Differential equations: geometric theory	
Lefschetz	Contributions to theory of nonlinear oscillations	
Leighton	Ordinary Differential Equations	
Levitan	Inverse Sturm-Lioville Problems	
Magnus	Hill's Equation	
Martin	Elementary Differential Equations	
Ortega	Periodic differential equations in the plane	
Phillips	Elementary Differential Equations	
Piaggio	Differential Equations	

Polking	Differential Equations with Boundary Value Problems	3
Rabenstein	Introduction to Ordinary Differential Equations	
Radhika	Approximate Analytical Methods for Solving Ordinary Differential Equations	
Rouche	ODEs, stability and periodic solutions	
Simmons	Differential equations with applications and historical notes	
Wirkus	A Course in Ordinary Differential Equations	
Zill	A first course in differential	

	35 PDEs	2a
Author	Title	Copies
Ablowitz	Nonlinear dispersive waves	
Adziewski	Introduction to partial differential equations for scientists and engineers using mathematica	2
Agmon	Lectures on elliptic boundary value problems	
Amenta	Elliptic BVP with fractional regularity data. The 1st order approach	
Andrews	Elementary partial differential equations with boundary value problems	
Arnold	Lectures on partial differential equations	
Articolo	Partial differential equations and boundary value problems with Maple V	
Berg	Elementary partial differential equations	
Berline	Heat kernels and Dirac operators	
Bers/John/Schechter	Partial differential equations	
Bieberbach	Theorie der gewöhnlichen Differentialgleichungen	
Bleecker	Basic PDEs	
Bloom	Ill-posed problems for integro differential equations in mechanics and electromagnetic theory	
Booss-Bavnbek	Elliptic boundary problems for Dirac operators	
Booss-Bavnbek	Topologie und analysis	
Caffarelli	Fully non-linear elliptic equations	
Cannon	Inverse problems	
Caratheodory	calculus of variations and partial differential equations of the first order	
Cartan seminar	Theoreme d'Attiyah-Singer, exp. 1-15	
Cartan seminar	Theoreme d'Attiyah-Singer, exp. 16-25	
Chern	Seminar on nonlinear partial differential equations	
Coleman	An introduction to PDEs with MATLAB	
Colton	Inverse problems in PDEs	
Colton	Invariant imbedding and inverse problems	

copson	partial differential equations	
Courant/Hilbert	Methods of mathematical physics, v. I	2
Courant/Hilbert	Methods of mathematical physics, v. II	2
crank	Free and moving boundary problems	
Davis	Introduction to applied PDEs	
Damascelli	Morse index of solutions of nonlinear elliptic equations	
DiBenedetto	Degenerate parabolic equations	
Dodson	Defocusing nonlinear Schroedinger equations	
Dold	Singularities and constructive methods for their treatment	
Duchateau	partial differential equations	
Duffy	Transform methods for solving partial differential equations	
Duistermaat	Fourier integral operators	
Duvaut	Inequalities in mechanics and physics	
Ehrenpreis	Fourier analysis in several complex variables	
Elliott	Weak and Variational methods for moving boundary problems	
Faou	geometric numerical integration and schrodinger equations	
Farlow	partial differential equations for scientists and engineers	
Figalli	The Monge-Ampere Equations and its applications	
Fokas	Unified Transform for boundary value problems	
Folland	Introduction to partial differential equations	3
Friedman	partial differential equations	3
Friedman	partial differential equations of parabolic type	
Garabedian	PartIAL DIFFERENTIAL EQUATIONS	2
Gesztezy	Non-linear PDEs, Math physics, and Stochastic analysis	
Gelman	Estimates for differential operators in half-space	
Gilbarq	Elliptic PDEs of second order	2
Guillemin	Geometric asymptotics	

Haberman	Elementary applied partial differential equations with Fourier series and boundary value problems	2
Hadamard	Lectures on Cauchy's problem in linear partial differential equations	
Haldar	Decomposition Analysis Method in linear and nonlinear differential equations	
Hassi	Operator methods for boundary value problems	
Hebey	Compactness and stability for nonlinear elliptic equations	
Hellwig	Partial differential equations. An introduction	
Hormander	Seminar on singularities of solutions of linear partial differential equations	
Hormander	Linear partial differential operators	2
Hormander	The analysis of linear PDES V.2	
Humi	Boundary Value problems and partial differential equations	
Ikawa	Hyperbolic partial differential equations	
Jeffrey	Asymptotic methods in nonlinear wave theory	
John	Partial differential equations	2
John	Nonlinear wave equations. Formation of singularities	
Kashiwara	Regular and irregular holonomic D-modules	
Keller	Bifurcation theory and nonlinear eigenvalue problems	
Kevorkian	partial differential equations---analytic solutions techniques	
Kevrekidis	The defocusing nonlinear Schroedinger equation from dark solitons to vortices and vorte rings	
kinderlehrer	An introduction to variational inequality and their applications	
Krieger	Concentration compactness for critical wave maps	
Kuehn	PDE dynamics	
Lax	partial differential equations	
Lax	scattering theory for automorphic functions	
Lax	scattering theory	

Lax	Hyperbolic systems of conservation laws and the mathematical theory of shock waves	
Lemarie	Recent developments in Navier-Stokes	
Lewis	regularity estimates for nonlinear elliptic and parabolic problems	
Li	Invariant manifolds and Fibrations for Perturbed Nonlinear Schrodinger Equations	
Li	Physics and partial differential equations	
Li	Solutions of nonlinear differential equations	
Lieberman	Oblique derivative problems for elliptic equations	
Lions	Non-homogeneous boundary value problems, problems I	
Lions	Non-homogeneous boundary value problems, problems II	
Lions	Non-homogeneous boundary value problems, problems III	
Liu	Stochastic stability of Des	
McOwen	partial differential equations---methods and applications	
Meyer	The Cauchy Problem for non-lipschitz semi-linear parabolic partial differential equations	
Miranda	partial differential equations of elliptic type	
Moon	partial differential equations	
Morawetz	Notes on time decay and scattering for some hyperbolic problems	
Mugnolo	Semigroup Methods for evolution equations on networks	
Myint-U	Partial differential equations of mathematical physics	
Oksendal	Stochastic Des	
Payne	Improperly posed problems in PDEs	
Pinsky	PDEs and BVPs with applications	
Protter	Maximum principles in differential equations	
Rogers	An introduction to partial differential equations	
Roach	Green's functions 2 edition	

Rempel	Index theory of elliptic boundary problems	
Rubinstein	The Stefan problem	
Sharma	Quasilinear hyperbolic systems, compressible flows and waves	
Shubin	Pseudodifferential operators and spectral theory	
Smoller	Shock waves and reaction-diffusion Equations	
Sneddon	Partial differential equations	
Sogge	Lectures on non-linear wave equations	
Stakgold	boundary Value problems of mathematical physics volume I	2
Taira	Analytic semigroups and semilinear initial boundary value problems, 2 edition	
Taylor	Partial differential equations I basic theory	
Taylor	Partial differential equations II qualitative studies of linear equations	
Taylor	Partial differential equations III nonlinear equations	
Taylor	Pseudodifferential operators and spectral theory	
Taylor	Pseudodifferential operators, LNM	
Treves	Basic linear PDEs	
Treves	Pseudodifferential and integral Fourier operators V.1	
Treves	Pseudodifferential and integral Fourier operators V.2	
Treves	Locally convex spaces and linear PDEs	
Troutman	Boundary Value problems of applied mathematics	
Tychonov	Holdey-day series in mathematical physics partial differential equations of mathematics physics	
Uhlmann	Inside out, v	
Weinberger	A first course in partial differential equations	2
Zachmanoglou	Introduction to partial differential equations with applications	
Zauderer	partial differential equations of applied mathematics	2

<u>37</u>	Dynamical systems, differential equations and applications		2a
author	title	#	
Arnold	Catastrophe theory		
Arveson	Noncommutative dynamics and semigroups		
Calogero	Isochronous systems		
Clarson	Stochastic problems in dynamics		
Ellis	Automorphisms and equivalence relations in topological dynamics		
Gulick	Encounters with chaos and dynamics		
Guo	Infinite dimensional dynamical systems in atmospheric and oceanic science		
Hagen	Beyond hyperbolicity		
Halmos	Ergodic theory		
Hou	Dynamical systems, differential equations and applications		
KutKut	The mean and individual ergodic theorems		
Leonov	Strange attractors and classical stability theory		
Martynyuk	Uncertain dynamical systems		
Martynyuk	Weakly connected nonlinear systems		
Milani	An introduction to semiflows		
Morelli	Passive network synthesis		
Narang-Siddarth	Nonlinear time scale systems ...		
Nelson	Topics in dynamical systems: I. Flows		
Nipp	Invariant manifolds in discrete and continuous dynamical systems		
Ott	Chaos in dynamical systems		
Percival	Introduction to dynamics		
Peskir	Lectures on uniform ergodic theorems		
Petersen	Ergodic theory		
Poston	Catastrophe theory and applications		
Putnam	Cantor Minimal Systems		
Roberts	Model Emergent Dynamics in Complex Systems		
Ruelle	Chaos on the Interval		
Sinai	Introduction to ergodic theory		
Sorrentiono	Action-minimizing methods in Hamiltonian dynamics		
Strogatz	Nonlinear dynamics and chaos		
Temam	Infinite dimensional dynamical systems in mechanics and physics		
Upadhuay	Introduction to mathematical modeling and chaotic dynamics		

Viana	Foundations of ergodic theory	
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39,40, 44, 45 sequences, series, finite diff., asymptotic methods, integral equations and transforms, 2b

author	title	#
Bleistein	Asymptotic expansions of integrals	
Boole	The calculus of finite differences	
Bromwich	Theory of infinite series	
Bruijn	Asymptotic methods in analysis	
Davies	Integral Transforms and Their Applications	
Debnath	Integral transforms and their applications	2
Dienes	The Taylor series	
Dold	Fractional calculus and its applications	
Erdelyi	Asymptotic expansions	2
Goldberg	Introduction to difference equations	
Hardy	Divergent series	
Hardy	Fourier series	
Holl	Introduction to Laplace transform	
Hirschman	Infinite series	
Hydon	Difference equations by differential equations methods	
Jolley	Summation of series	
Knopp	Infinite series and sequences	2
Krasnov	Problems and exercises in integral equations	
Lovett	Linear integral equations	
Markoe	Analytic Tomography	
Miller	Nonlinear Volterra integral equations	
Moore	Summable series and convergence factors	
Noble	Wiener-Hopf equations	
Pipkin	A course on integral equations	
Powell	Approximation theory and methods	
Rainville	Infinite series	
Ramm	Tomography	
Srivastava	Convolution integral equations	
Tricomi	Integral equations	2
Uhlmann	Inverse Problems and Applications, Inside Out II	
Wing	A primer on integral equations of the first kind	
Yosida	Lectures on differential and integral equations	

41	Approximation Theory	2b
author	title	#
de Boor	Box splines	
Cheney	Intro to Approximation theory	2
Cheney	A course on approximation theory	
Chui	Topics in multivariate approximation	
Chui	Approx. theory and functional analysis	
Deutsch	Best approximation in inner product spaces	
DeVore	Approx. of continuous functions by positive linear operators	
DeVore	Quantitative approximation	
Dold	Approximation theory Bonn 1976	
Dyn	Multivariate approximation and applications	
Holmes	A course on optimization and best approximation	
Krabs	Optimization and approximation	
Neamtu	Advances in constructive approximation	
Neamtu	Contributions to multivariate splines	
Nuemberger	Approximation by spline functions	
Rivlin	Intro. To Approximation of functions	
Schumaker	Spline functions. Basic theory	
Shapiro	Topics in approximation theory	
Trefethen	Approximation theory and approximation practice	
Welsch	Interpolation and approximation by rational functions in the complex domains	in AMS Colloq
Wendland	Scattered data fitting by radial and related functions	

42 & 43	Harmonic analysis	2b
Author/Editor	Title	#
Ash	Studies in harmonic analysis	
Axler	Harmonic function theory	2
Benedetto	Harmonic analysis and applications	
Benedetto	Spectral synthesis	
Besicovich	Almost periodic functions	
deBrange	Square summable Fourier series	
Carslaw	Intro. To theory of Fourier series	
Challifour	generalized functions and Fourier analysis	
Churchill	Fourier series and boundary value problems	2
Constantin	Fourier analysis, v. 1	
Daubechies	Ten lectures on wavelets	
Demeter	Fourier restriction, decoupling, and applications	
DeVito	Harmonic analysis. A gentle introduction	2
Dym,McKean	Fourier series and integrals	
Franklin	Fourier methods	2
Glimm	Lectures on harmonic analysis (non-Abelian)	
Grafakos	Classical and modern Fourier analysis	
Guillemin	Seminar on microlocal analysis	
Hewitt	Abstract harmonic analysis, v. 1	
Jackson	Fourier sewries and orthogonal polynomials	
James	A student's guide to Fourier transforms	
Jorgensen,	Non-Commutative Analysis	
Katznelson	An introduction to harmonic analysis	2
Korner	Fourier analysis	
Korner	Exercises for Fourier analysis	
Levinson	Gap and density theorems	
Papoulis	The Fourier analysis and its applications	
Reed & Simon	Fourier analysis, self adjointness	
	1980 seminar on harmonic analysis	
Rudin	Fourier analysis on groups	
Sadosky	Interpolation of operators and singular integrals	
Schaum	Fourier analysis	
Schlag	A course in complex analysisism and Riemann surfaces	
Seeley	An introduction to Fourier series and integrals	

Stein	Topics in harmonic analysis related to the Littlewood-Paley theory	
Stein	Singular integrals and differentiability properties of functions	2
Stein & Weiss	Introduction to Fourier analysis on Euclidean spaces	2
Stein&Weiss	Introduction to Fourier analysis on euclidean spaces	
Street	Multi-parameter singular integrals	
Szego	Othogonal polynomials	2
Tolstov	Fourier series	4
Van Aseche	Orhogonal polynomials and Painleve equations	
Wiener	generalized harmonic analysis. Tauberian theorems	
Zemanyan	Distriobution theory and transform analysis	
Zygmund	Trigonometrical series	
Zygmund	Trigonemtric series, volumes 1 and 2	
Yuen	Digital spectral analysis	

Wavelets

Boguess	A first course in wavelets	2
Chen	Wavelets and splines	
Chui	Wavelets: a math tool	
Chui	An introduction to wavelets	
Dahmen	Multiscale wavelet methods for PDEs	
Meyer	Wavelets	
Najmi	Wavelets	
Schumaker	Recent advances in wavelets	
Zeevi	Swignal and image representation	

46	Functional analysis	2b
Author	Title	#
Adams	Sobolev spaces	3
Akhieser	Theory of linear operators in Hilbert spaces, v. 2	
Alfsen	Compact Convex Sets and Boundary Integrals	
Albiac	Topics in Banach Space Theory	
Arveson	An Invitation to C-Algebra	
Attouch	Variational analysis in Sobolev and BV spaces	
Bade	The Banach Space $C(S)$	
Banks	A functional analysis framework for modeling, estimation, and control in science and engineering	
Bartle	Studies in functional analysis	
Birtel	Function algebras	
Bonsall	Complete Normed Algebras	
Browder	Introduction to Function Algebras	
Choquet	Lectures on Analysis v.1 Integration and Topological Vector Spaces	
Choquet	Lectures on Analysis v.2 Representation Theory	
Choquet	Lectures on Analysis v.3 Infinite Dimensional Measures and Problem Solutions	
Ciarlet	Linear and Nonlinear Functional Analysis with Applications	
Collatz	Functional Analysis and Numerical Mathematics	
Diestel	Geometry of Banach Spaces – Selected Topics	
Dixmier	C^* -Algebras	
Dold (Ed)	Probability in Banach spaces	
Dold (Ed)	Spaces of analytic functions, Norway 1975	
Dold	C^* -Algebras and Applications to Physics	
Dunford	Linear operators. Part I	2
Dunford	Linear operators. Part II	
Edwards	Functional Analysis Theory and Applications	
Erdelyi	Spectral Decompositions on Banach Spaces	
Farmakis	Fixed point theorems and their applications	
Fisher	Minimum Norm Extremals in Function Spaces	
Friedlander	Introduction to the theory of distributions	
Gamelin	Uniform algebras	
Gao	Handbook of Nonconvex Analysis and Applications	
Gelfand	Generalized functions v. 1 Properties and operations	
Gelfand	Generalized functions v. 2 Spaces of test and functions and distributions	2

Gelfand	Generalized functions v. 3. Theory of differential equations	
Gelfand	Generalized functions v. 4 Applications of harmonic analysis	
Gelfand	Generalized functions v. 5 Integral geometry and representation theory	
Glazman	Finite Dimensional Linear Analysis	
Goffman	First course in functional analysis	
Griffel	Applied functional analysis	
Halmos	Finite dimensional vector spaces	
Halmos	A Hilbert space problem book	
Halmos	Introduction to Hilbert space and spectral multiplicity	
Heinonen	Sobolev spaces on metric measure spaces	
Hille	Methods in classical and functional analysis	
Hoffman	Banach Spaces of Analytic Functions	
Hoffman-Jorgensen	Probability in Banach spaces	
Johnson	Handbook of the Geometry of Banach Spaces v.1	
Kadison	Operator Algebras and Applications	
Kahane	Some random series of functions	
Kelley	Linear Topological Spaces	
Kesavan	Nonlinear functional analysis and its applications. V. 1	
Kolmogorov & Fomin	Functional analysis v. 1	
Kolmogorov & Fomin	Functional analysis v. 2	
Krantz	Geometric Integration Theory	
Krasnosel'skii	Topological Methods in the Theory of Nonlinear Integral Equations	
Lacey	Notes in Banach spaces	
Lacey	The isometric theory of classical Banach spaces	3
Lang	Analysis II	
Light	Approximation Theory in Tensor Product Spaces	
Lindenstrauss	Classical Banach Spaces I Sequence Spaces	
Lindenstrauss	Classical Banach Spaces	
Marti	Introduction to the Theory of Bases	
Maurin	Methods of Hilbert spaces	
Milne	Applied functional analysis. An introductory treatment	

Nirenberg	Functional analysis (Notes)	
Nirenberg	Topics in nonlinear functional analysis (Notes)	
Oden	Applied Functional Analysis	
Padgett	Laws of large numbers for normed linear spaces	
Page	Topological uniform structures	
Paulsen	An introduction to the theory of reproducing kernel Hilbert spaces	
Pedersen	C*-Algebras and their Automorphism Groups	
Peressini	Ordered topological vector spaces	
Phelps	Lectures on Choquet's theorem	2
Pinkus	Ridge Functions	
Pisier	Volume inequalities in the geometry of Banach spaces (Notes)	
Pisier	Probabilistic methods in the geometry of Banach spaces (Notes)	
Pisier	Martingales in Banach Spaces	2
Pshenichnyi	Necessary conditions of extremum	
Reed & Simon	Functional analysis	2
Riesz/Nagy	Functional analysis	3
Rickart	Banach Algebras	
robertson	topological vector spaces	
Robinson	Non-standard analysis	
Rockafellar	Convex Analysis	
Rudin	Functional analysis	
Sakai	C*-Algebras and W*-Algebras	
Schaefer	Topological Vector Spaces	
Schechter	Principles of functional analysis	
Schuster	Regularization methods in Banach spaces	
Schwartz	Non-Linear Functional Analysis	
Semadeni	Banach Spaces of Continuous Functions v.1	
Shilov	Linear spaces	
Shilov	Elementary functional analysis	
Shioya	Metric Measure Geometry Gromov's Theory of Convergence and Concentration of Metrics and Measures	
Simmons	Introduction to topology and modern analysis	
Singer	Best Approximation in Normed Linear Spaces by Elements of Linear Subspaces	
Sobolev	Applications of Functional Analysis in Mathematical Physics	
Taylor	Introduction to functional analysis	

Thomsen	Hilbert C* modules, KK-theory, and C* extensions	
Triebel	tempered homogenous function spaces	
Triebel	Faber systems and their use in sampling	
Triebel	Function Spaces with Dominating Mixed Smoothness	
Vakhania	Probability distributions on Banach spaces	
Van Daele	Continuous crossed products and Type III von Neumann algebras	
Vath	Topological analysis	
Wilansky	Functional analysis	
Wojtaszczyk	Banach Spaces for Analysts	
Wright	Uniqueness of the Injective III_1 Factor	
Yosida	Functional analysis	2
Zaanen	Linear Analysis	
Zeidler	Applied functional analysis. Applications to math.physics	3
Zeidler	Nonlinear functional analysis and its applications. V. 1	
Zemanian	Distribution theory and transform analysis	

Author	Title	#
Achieser	Theorie der linearen Operatoren in Hilbert-Raum	
Akhiezer	theory of linear operators in hilbert space v. 1	
Akhiezer	theory of linear operators in hilbert space v. 2	2
Applebaum	Semigroups of linear operators	
Arendt	Spectral theory, math. Systems theory, evolution equations, differential and difference equations	
Arsene	A bibliography of operator algebras	
Arveson	A short course on spectral theory	
Bennett	Interpolation of Operators	
Berezanskii	Expansions in eigenfunctions of selfadjoint operators	2
Boise et al (Ed)	Concrete operators, spectral theory, ...	
Bonsall	Numerical Ranges of Operators on Normed Spaces and of Elements of Normed Algebras	
Bonsall	Numerical Ranges II	2
Botcher	Invertibility and asymptotics of Toeplitz matrices	
Boutet de monvel & Guillemin	The spectral theory of Toeplitz operators	
Brodskii	Triangular and Jordan representations of linear operators	
Bunimovich	Isospectral transformations	
Butzer	Semi-Groups of Operators and Approximation	
Caradus	Calkin Algebras and Algebras of Operators on Banach Spaces v. 9	
Carey	Eigenfunction expansions and Friedrich's method	
Connes	Non-commutative differential geometry	
Connes	Geometrie non commutative	
Curto	Fredholm and invertible triples of linear operators	
Dittrich	Functional analysis and operator theory for quantum physics	
Dixmier	Les c^* algebras et leurs representations	
Dixmier	les algebres d'operateurs dans l'espace Hilbertien (Algebres de Von Neumann)	
Dold & Cuntz	Topological invariants of generalized operator algebras	

Dold	Hilbert Space Operators	
Dold	Proceedings of a Conference on Operator Theory	
Dold	Approximate Identities and Factorization in Banach Modules	
Dold	K-theory and operator algebras	
Dold (Ed.)	Operator algebras and their connections with topology & ergodic theory	
Douglas	Banach algebra techniques in the theory of Toeplitz operators	
Dunford	Linear Operators Part I	
Dunford	Linear Operators Part II	
Ernest	Spectral multiplicity theory	
Evans & Takesaki	Operator algebras and applications, v.1,2	
Fillmore	Notes on Operator Theory	
Foias, Frazho, Gohberg, Kaashoek	Metric constrained interpolation, commutant lifting and systems	
Friedrichs	Spectral theory of operators in Hilbert space	2
Garcia	Introduction to model spaces and their operators	
Goldberg	Unbounded linear operators	
Gracia-Bondia	Elements of noncommutative geometry	
Helson	Lectures on Invariant Subspaces	
Hille	Functional Analysis and Semi-Groups	2
Johnson	The Feynman integral and Feynman's operational calculus	
Krom	Invariant means	
Lacey	The isometric theory of classical Banach spaces	2
Livsic	Operators, oscillations, waves	
Longo (Ed)	Math Physics. Quantum and operator algebraic aspects	
Lorch	Spectral Theory	
Manin	Topics in noncommutative geometry	
Mark	Averaging-Homomorphisms	
Muhly	Commutants containing a compact operator	
Naimark	Normed rings	
Naylor	Linear operator theory in engineering and science	
Paulsen	Completely bounded maps and operator algebras	
Paulsen	Completely bounded maps and dilations	

Pearcy	Topics in Operator Theory	
Pisier	Factorization of linear operators and geometry of Banach spaces	
Popa	Classification of subfactorrrs and their endomorphisms	
Popovici	Wold-type decompositions	
Przeworska-Rolewicz	Equations in linear spaces	
Putnam	Commutation Properties of Hilbert Space Operators and Related Topics	
Radjavi	Invariant Subspaces	
Raymond	States of the magnetic Schroedinger operator	
Reed & Simon	Analysis of operators	
renault	Groupoid approach to C* algebras	
Rickard	Banach algebras	
Rosenthal	Invariant subspaces	
Sakai	C* algebras and W* algebras	
Schatten	Norm Ideals of Completely Continuous Operators	
Schmeidler	Linear operators in Hilbert space	
Schwartz	Nonlinear functional analysis	
Shen	Introduction to operator algebras	
Simon	Trace ideals and their applications	
Simon	Szego theorem and its descendants	
Sinha	Theory of semigroups and applications	
Sinclair	Automatic continuity of linear operators	
Stone	Linear Transformation in Hilbert Spaces	
Stout	The theory of uniform algebras	
Stratila & Voiculescu	Representations of AF algebras and of the group $U(\infty)$	
Sunder	Operators on Hilbert space	
Sz.-Nagy & Foias	Analyse harmonique des operateurs de lespace de Hilbert	
Takesaki	Theory of operator algebras I	
Torres,	Boundedness For Operators With Singular	
Urmeir	Symmetric banach manifolds and Jordan C* algebras	
Wang, J.	Banach algebras	
Wang, X.	On the C* algebras of foliations in the plane	
Williamson (Ed.)	Algebras in analysis	
Xia, D.	Analytic theory of subnormal operators	
Xia, D.	Spectral theory of hyponormal operators	

Zhu	Operator theory in function spaces	
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**Calculus of variations. Optimization,
49, 90, 93 Operations res. Math programming, System
theory, Control**

2b

author	title	#
Akhieser	Calculus of variations	2
Ammari	Evolution equations. Long time behavior and control	
Arora	Optimization	
Beck	Introduction to nonlinear optimization. Theory, algorithms, and applications with MATLAB	
Beck	first-order methods in optimization	
Bekiaris-Liberis	Nonlinear control under nonconstant delays	
Bellman	Adaptive control processes	
Berkovitz	Nonlinear optimal control theory	
Berge	Programming, games, transportation networks	
Birgin	Practical augmented Lagrangian methods for constrained optimization	
Blecherman	Semidefinite optimization and convex algebraic geometry	
Brickman	Mathematical introduction to linear programming and game theory	
Cherkaev	Variational methods for structural optimization	
Churchill	Operational mathematics	
Courant	Calculus of variations (Notes)	
Dantsig	Studies in optimization	2
Delfour	Intro to optimization and Hadamard semidifferential calculus	
Dym	Mathematical methods in systems, optimization, and control	
Ewing	Calculus of variations and applications	
Ferrara	Advanced and optimization based sliding mode control	
Fiacco	Nonlinear programming	
Ficken	The simplex method of linear programming	
Fox	An introduction to calculus of variations	
Garoche	Formal verification of control systems software	
Gass	Linear programming	2
Gelfand	Calculus of variations	
Giaquinta	Multiple integrals in calculus of variations and nonlinear elliptic systems	
Gill	Practical optimization	
Goos	Conference on optimization techniques. Part 1	
Guenn	A gentle introduction to optimization	

Himmelblau	Applied nonlinear programming	
Jarzebowska	Model-based tracking control of nonlinear systems	
Kinderlehrer	An introduction to variational inequalities and their applications	
Kutz	Dynamic mode decomposition	
Lange	MM Optimization algorithms	
Lasserre	An introduction to polynomial and semi-algebraic optimization	2
Lee	Foundations of optimal control theory	
MacCluer	Calculus of variations. Mechanics, control, and other applications	
Newhauser	An introduction to dynamic programming	
McLachlan	Modern operational calculus	
Michiels	Stability, control, and computation for time-delay systems	
Morrey	Multiple integrals in calculus of variations	
Nikolski	Rudiments de la theorie du control	
Ogata	Discrete time-control systems	
Ollivier	Optimal transportation. Theory and applications	
Osmolovskii	Applications to regular and bang-bang control	
Ozbay	Frequency domain techniques for H^∞ control	
Rodrigues	Piecewise affine control	
Sagan	Introduction to calculus of variations	
Shapiro	Lecturees on stochastic programming	
Sipaho	Mastering frequency domain techniques	
Szeg\’o	Minimization algorithms	
Todd	Minimum-volume ellipsoids: theory and algorithms	
Toth	Vehicle routing	
Vajda	The theory of games and l;inear programming	
von Lanzenauer	Cases in operations research	
Weinstock	Calculus of variations	

<u>50, 52</u>	Geometry. Convex and discrete	2b
author	title	#
Alberge	Eighteen Essays in Non-Euclidean Geometry	
Albert	Solid analytic geometry	
Apostol	New horizons in geometry	
Baragar	A survey of classical and modern geometry	
Blau	Foundations of Plane Geometry	
Bocher	Plane analytic geometry	
Bubb	Descriptive geometry	
Berelle	Geometry. Theorems and constructions	
Coxeter	Non-Euclidean geometry	
Crannell	Perspective and projective geometry	
Croft	Unsolved problems in geometry	
Epstein	Forbidden configurations in discrete geometry	
Eves	College Geometry	
Davis	Analytic geometry	
Fine	coordinate geometry	
Fujuwara	Foundations of rigid geometry	
Fuller	Analytic geometry	
Greenberg	Euclidean and non-euclidean geometry. Development and history	2
Hartshorne	Foundations of projective geometry	
Henderson	Experiencing geometry on plane and sphere	
Isaacs	Geometry for college students	2
Jay	Euclidean and non-euclidean geometries	
Kazarinoff	Geometric inequalities	
Larkins	Essentials of descriptive geometry	
Levi	Foundations of geometry and trigonometry	
Lial	Essentials of geometry for college students	
Lockwood	A book of curves	
Millar	Descriptive Geometry	
Moise	Elementary geometry from advanced standpoint	
Nichols	Analytic geometry	2
Scherk	Rudiments of plane affine geometry	
Seidenberg	Lectures in projective geometry	

Sisam	Analytic geometry	
Smart	Modern geometry	4
Taylor	Plane and spherical trigonometry	
Taylor	Subsets of the plane: plane analytic geometry	
Tryon	Elementary geometry for college	
Umble	Transformational plane geometry	
Wallace	Roads to geometry	2
Weeks	The shape of space	
Wentworth	Plane and solid geometry	
Wylie	Foundations of geometry	
Yaglom	Convex figures	
Young	projective geometry	2

author	title	#
Adachi	Prospects of differential geometry and related fields	
Auslander	Differential geometry	
Berndt	Submanifolds and holonomy	
Bishop	tensor analysis on manifolds	
Blanoeil	Singularities and geometry and topology. Strasbourg 2009	
Bojarski	Infinitesimal geometry of conformal and quasiconformal ...	
Bolte	Hyperbolic geometry and applications in quantum chaos and cosmology	
Boothby	An introduction to differentiable manifolds and Riemannian geometry	
Bourguignon	A spinorial approach to Riemannian and conformal geometry	
Brakke	The motion of a surface by its mean curvature	
Bredon	Topology and geometry	
Bunge	Synthetic Differential Topology	
Camacho	Geometric theory of foliations	
Carinena	Geometry from dynamics, classical and quantum	
de Carmo	Differential geometry of curves and surfaces	
Cartan	Geometrie des espaces de Riemann	
Cartan	The theory of spinors	
Casas-Alvero	Analytic projective geometry	
Cheeger	Comparison theorems in Riemannian geometry	
Chen	Geometry of submanifolds	
Cheng	Finsler geometry	
Chern	Topics in differential geometry (Notes)	
Chern	Differentiable manifolds (Notes)	
Chern	Studies in global geometry and analysis	
Colding	Minimal surfaces	
Darling	Differential forms and connections	
Dieudonne	Treatise on analysis, v. 3	
Do Carmo	Differential geometry of curves and surfaces	
Ebin	Espace de metriques Riemanniennes et mouvement des fluids	
Flanders	Differential forms with applications to physical sciences	
Fowler	The elementary differential geometry of plane curves	
Fowler	Differential geometry	
Griffiths	Differential systems and isometric embeddings	
Gray	Modern differential geometry of curves and surfaces	
Gu	Computational conformal geometry	
Helgason	Geometric analysis on symmetric spaces	

Hicks	Notes on differential geometry	
Hubbard	Vector calculus, linear algebra, and differential forms. A unified approach	
Jost	Riemannian geometry and geometric analysis	2
Klingenberg		
Kobayashi	Lectures on closed geodesics	
Kobayashi	Foundations of differential geometry. v.1	
Kovalskii	Foundations of differential geometry. v.2	
Lang	Differentiable manifolds	
Lass	generalized symmetric spaces (in Russian)	
Laurent	Curves and surfaces	
lawson	Vector and tensor analysis	
Lovelock	Spin geometry	
Marden	Hyperbolic manifolds	
Matsushima	Differentiable manifolds	
McConnell	Differential geometry	
Miller	Applications of tensor analysis	
Milnor	Morse theory	2
Milnor	Topology from the differential viewpoint	
Moore	Global analysis of foliated spaces	
Munkres	Lecture notes on O-minimal surfaces and real analytic geometry	
Nelson	Tensor analysis	
O'Neill	Elementary differential topology	
Oprea	Semi-Riemannian geometry	3
Oprea	Differential geometry and its applications	
Osserman	Differential geometry and its applications	2
Papadopoulos	A survey of minimal surfaces	
Parker	Handbook on Hilbert geometry	
Pitts	Existence and regularity of minimal surfaces	several
PSPM	MathTensor	
Reinhart	Differential geometry of foliations	
Schreiber	Differential forms. A heuristic introduction	
Schwartz	Differential geometry and topology	
Simmonds	v. 27, Differential geometry	
Sokilnikoff	Tensor analysis	
Snyaticky	A brief on tensor analysis	
Spivak	Differential geometry of singular spaces and reduction of symmetry	
Spivak	Differential geometry, v. 1	2
Spivak	Differential geometry, v. 2	2
Spivak	Differential geometry, v. 3	
Spivak	Differential geometry, v. 4	
Springer	Geometry and analysis in projective spaces	

Taimanov	Differential geometry, v. 5	
Tondeur	Foliations on Riemannian manifolds	
Udriste	Lectures on differential geometry	
Lipschutz	Tensors, differential forms, and variational principles	
Von Westenholz	Problems of linear algebra, analytic and differential geometry, and differential equations	
Wall	Surgery on compact manifolds	
Warner	Foundations of differential manifolds and Lie groups	
Weyl	Differential forms in mathematical physics	
Yau	The concept of a Riemann surface	
	Seminar on differential geometry	

54	<u>General topology</u>	3a
Author	Title	#
Alexandroff	Elementary Concepts of Topology	
Adams	Introduction to topology	
Arnold	Intuitive concepts in elementary topology	
Ault	Understanding Topology	
Baker	Introduction to topology	
Barr	Experiments in topology	
Basener	Topology and its applications	
Bourbaki	General Topology (Part 1)	2
Bourbaki	General Topology (Part 2)	2
Buskes	Topological spaces	
Bushaw	Elements of general topology	
Cairns	Introductory Topology	
Chinn & Steenrod	First concepts of topology	
Cullen	Topology	
Davis	Topology	2
Dugundji	Topology	3
Gaal	Point Set Topology	
Gemignani	Elementary topology	
Goodman	Beginning topology	2
Goubault-Larrecq	Non-Hausdorff Topology and Domain Theory	
Greever	Theory and Examples of Point-Set Topology	
Hilton	Studies in Modern Topology	
Hocking	Topology	
Holden	Elements of General Topology	
Hu	Elements of General Topology	
Kahn	Topology	
Kanovei	Canonical Ramsey Theory on Polish Spaces	
Kasriel	Topology	
Krantz	Essentials of topology with applications	
Kelley	General topology	2
Kuratowski	Topology v. 1	
Lipschutz	Theory and Problems of General Topology	
Moore	Foundations of Point-Set Topology	
Moore	Elementary General Topology	2
Pervin	Foundations of General Topology	
Roseman	Elementary topology	
Sieradski	An introduction to topology and homotopy	
Sentilles	A Bridge to Advanced Mathematics	
Sierpinski	General Topology	
Simmons	Introduction to Topology and Modern Analysis	

Singer	Lecture notes on elementary topology and	
Singh	Elements of topology	
Steen	Counterexamples in topology	
Summer inst.	on set theoretic topology	
Willard	General topology	

55	Algebraic topology	3a
Author	Title	#
Abraham	Lectures of Smale on Differential Topology	
Adams	Algebraic topology, A student's guide	
Adams	Stable homotopy andm generalized homology	
Alexandroff	Elementary concepts of topology	
Aravinda	Geometry, Topology, and Dynamics in Negative Curvature	
Artin	Introduction to algebraic topology	
Blanloeil	Singularities in Geometry and Topology	
Borsuk	Theory of Retracts	
Bredon	Topology and geometry	
Cohen	A course in simple homotopy theory	
Cooke	Homology of Cell Complexes	
Dodson	Geometry in a Frechet Context	
Dupont	Scissor congruences, group homology and characteristic classes	
Eilenberg	Foundations of Algebraic Topology	
Felix	Rational Homotopy Theory (Volume 2)	
Greenberg	Lectures on algebraic topology	2
Hatcher	Algebraic topology	
Hilton	Homology Theory	
Hilton	An introduction to Homology Theory	
Hu	Theory of Retracts	
Hudson	Piecewise Linear Topology	
Kalajdzievski	Topology and Homotopy	
Latschev	Free Loop Spaces in Geometry and Topology	
Lefschetz	Topology	
Lefschetz	Algebraic Topology	2
Massey	Algebraic Topology: an introduction	4
Maunder	Algebraic topology	
McDuff	J-holomorphic Curves and Symplectic Geometry	
Michel	Higher-dimensional knots according to Kervaire	
Milnor	Characteristic classes	
Mosher	Cohomology operations and applications in homotopy theory	
Peterson	Formal geometry and bordism operations	
Schwede	Global homotopy theory	
Shastri	Basic Algebraic Topology	4

Singer & Thorpe	lecture notes on elementary topology and geometry	
Spanier	Algebraic Topology	6
Steenrod	The Topology of Fibre Bundles	2
Summers	New Scientific Applications of Geometry and Topology	
Swam	The theory of sheaves	
Tu	Introductory lectures on equivariant cohomology	
Vick	Homology theory	
Weinberger	Topological classification of stratified spaces	
Whyburn	Analytic Topology	

60	<u>Probability and stochastic processes</u>	3a
Author	<u>Title</u>	#
Arcones	On the Asymptotic Theory of the Bootstrap	
Ash	Information theory	
Barthe	Inegalites Fonctionnelles et Geometriques Obtenues par Transport des Mesures	
Bauer	Probability theory and elements of measure theory	
Bleher	Random Matrices and the Six-Vertex Model	
Borkar	Probability theory. An advanced course	
Caines	Linear Stochastic Systems	
Cardaliguet	Master equation and convergence problem in mean field games	
Chroin	Stochastic Tools in Mathematics and Science	
Chow	Stochastic Partial Differential Equations	
Chung	Elementary probability theory with stochastic processes	
Gobet	Monte-Carlo Methods and Stochastic Processes	
Da Veiga	Basics and trends in sensitivity analysis	
Devore	Probability and Statistics	
Doyle	Random Walks and Electric Networks	
Dubhashi	Concentration of Measure for the Analysis of Randomized Algorithms	
Duda	Pattern Classification and Scene Analysis	
Durrett	The Essentials of Probability	
Durrett	The Essentials of Probability (Solutions Manual)	
Feller	An Introduction to Probability Theory and its Applications	
Feller	An Introduction to Probability Theory and its Applications V.1	3
Fernique	Fonctions Aleatoires Gaussiennes, Vecteurs Aleatoires Gaussiens	
Fernique	Gaussian Random Vectors and their Reproducing Kernel Hilbert Spaces	
Franz	Probability on Real Lie Algebras	
Freudenthal	Probability and statistics	
Gangolli	Discrete Probability	2
Garsia	Martingale inequalities	
Georgii	Stochastics (Introduction to Probability and Statistics)	

Ghosh	Some problems of measures, specifically the probability measure	
Gine	Lectures on Some Aspects of the Bootstrap	
Gnedenko	Limit Distributions for Sums of Independent Random Variables	
Hayes	Derivation of martingales	
Helstrom	Probability and Stochastic Processes for Engineers	
van der Hoek	Introduction to hidden semi-Markov models	
Hoel	Introduction to Probability Theory	
Hoel	Intorduction to Stochastic Processes	
Hoffman-Jorgensen	Stochastic processes on Polish spaces	
Hogg	Probability and Statistical Inference	
Holland	Unsteady State Processes with Applications in Multicomponent Distillation	
Hunt	Percolation Theory for Flow in Porous Media	
Jacod	Discretization of Process	
Jain	Notes on Gaussian Processes	
Jain	Continuity of Subgaussian Processes	
Jentzen	Taylor Approximations for Stochastic Partial Differential Equations	
Kallianpur	Stochastic Filtering Theory	
Karlin	A first Course in stochastic processes	
Karlin	A second Course in stochastic processes	
Khrennikov	Probability and Randomness	
Khinchin	Mathematical Foundations of statistical mechanics	also math
Khinchin	Mathematical Foundations of Information Theory	
Kingman	On the Algebra of Queues	
Kopp	Probability and finance	
LaSalle	The stability and control of discrete processes	
Larsen	An Introduction to Probability and its Applications	
Loeve	Probability Theory	
Malyarenko	Invariant Random Fields on Spaces with a Group Action	
Marinucci	Random fields on the sphere	
Menshikov	Non-homogeneous random walks	
Meyer	probability and potentials	2
Meyer	Processes de Markov	

Meyer	Introductory Probability and Statistical Applications	
Meyer	Probability and mathematical statistics. Theorie, applications, practice in R	
mosteller	fifty challenging problems in probability with and statistics	
Niven	Mathematics of Choice (How to Count without Counting)	
Nourdin	Selected Aspects of Fractional Brownian Motion	
Oksendal	Stochastic Differential Equations	
Osswald	Malliavin Calculus for Levy Processes and Infinite-Dimensional Brownian Motion	
Panchenko	The Sherrington-Kirkpatrick model	also math
Parthasarathy	Stochastic games and related concepts	
Parzen	Modern probability theory and its applications	
Reich	Probabilistic Forecasting and Bayesian Data Assimilation	
Resnick	Adventures in stochastic processes	
Rio	Approximation Forte de Processus de Sommes Partielles Indexes par des Ensembles	
Ross	A First Course in Probability	4
Sabelfeld	Random Fields and Stochastic Lagrangian Models	
Sasvari	Multivariate Characteristic And Correlation Functions	
Sato	Levy Processes and Infinitely Divisible Distributions	
Scheaffer	Introduction to Probability and its Applications	
Schweder	Confidence, Likelihood, and Probability	
	Seminaire de probabilites I.	
Singh	Great Ideas in Information Theory, Language and Cybernetics	
Slepian	The Development of Information Theory	
Spitzer	Random Fields and Interacting Partical Systems	
Stroock	Multidimensional diffusion processes	
Stroock	An introduction to Markov processes	see GTM
Sverdrup	Laws and Chance Variations Volume 1	
Sverdrup	Laws and Chance Variations Volume 2	
Taylor	The Mathematics of Games	

Uspensky	Intorduction to Mathematical Probability	
Varadhan	Stochastic Processes	
Varadhan	Large Deviations	
Hafner	Choice and Chance	
Willink	Measurement, Uncertainty, and Probability	
Yin	Continuous-Time Markov Chains and Applications	

Author	Title	#
Aitken	Statistical mathematics	
Amstadter	Reliability Mathematics: Fundamentals; Practices; Procedures	
Anderson	Statistical theory in research	
Bhattacharya	Nonparametric inference on manifolds	
Blackwell	Basic statistics	
Campbell	A Primer on Regression Artifacts	
Cornuejols	Optimization Methods in Finance	
Dalgaard	Introductory statistics with R	
Dudley	A course on empirical processes (Notes)	
Eaton	Multivariate statistical analysis	
Edwards	Statistical analysis	
Epstein	Gambling and statistical logic	
Fisher	Statistical methods and statistical inference	
Forsyth	mathematical ananalysis of statistics	
Freedman	Mathematical methods in statistics	
Freund	regression methods	
Fuller	Introduction to statistical time series	
Griffiths	Numerical analysis using R	
Hajek	Theory of bank tests	
Hilbe	Modeling count data	
Hoel	Introduction to statistical theory	
Hoel	Introduction to mathematical statistics	2
Howe	Some contributions to factor analysis (Notes)	
Huntsberger	Elements of statistical inference	
Imbens	Causal inference in statistics, social, and biomedical sciences	
	In search of the wild hypothesis	
Ivezic	Statistics, data mining & machine learning in astronomy	
Johnson	Distributions in statistics. Continuous multivariate distributions	
Le Cam	Notes on asymptotic methods in statistical decision theory	
Leabo	Basic statistics	
Lindley	Understanding Uncertainty	
Koch	Analysis of multivariate and high-	
Mandel	The statistical analysis of experimental data	
Mann	Analysis and design of experiments	
Martinson	Quantitative methods of data analysis in physical sciences and engineering	
Mills	Statistical methods	

Mode	Elements of Statistics	
Rickmers	Statistics	
Rothman	Sandlot stats	
Schachermayer	Asymptotic Theory of Transaction Costs	
Suchmacher	Practical biostatistics	
Tucker	Linear regression analysis (notes)	
Wonnacott	Introductory statistics	
Wang	Finance	
Zhang	Statistical Implications of Turing's Formula	

65	Numerical analysis	5b
AUTHOR	TITLE	#
Allgower...	Numerical Continuation Methods	
Anderson	Lapck Users' Guide	
Antia	Numerical Methods for Scientists and Engineers	
Antoulas	Interpolatory methods for model reduction	
Atkinson	The Numerical Solution of Integral Equations of the Second Kind	
Atkinson	A Survey of Numerical Methods for the Solution of Fredholm Integral Equations of the Second Kind	
Aurentz	Core-chasing algorithms for the eigenvalue problem	
Baker...	Pade Approximants (in Russian)	
Birge	Mathematical programming. State of the art. 1994	
Bonet...	Worked Examples in Nonlinear Continuum Mechanics for Finite Element Analysis	
Borse	Numerical Methods with Matlab	
Braess	Finite elements	
Brenner...	The Mathematical Theory of Finite Element Methods	
Briggs	A multigrid tutorial	
Buchanan	Finite Element Analysis	
Bueler	PETSc for PDEs	
Burden...	Numerical Analysis	3
Carnahan...	Applied Numerical Methods	
Casti	Imbedding methods in applied mathematics	
Chan...	Domain Decomposition Methods	
Chen...	Multiscale Methods for Fredholm Integral Equations	
Chen...	Advances in computational mathematics	
Cherkaev	Variational Methods for Structural Optimization	
Chopp	Introduction to high performance scientific computing	
Chui	Multivariate Splines	
Ciarlet	Introduction to Numerical Linear Algebra and Optimisation	
Constantine	Active Subspaces: Emerging Ideas for Dimension Reduction in Parameter Studies	
Conte	Elementary numerical analysis	
Cucker...	Foundations of Computational Mathematics	
Cullen	An Introduction to Numerical Linear Algebra	
Dankowicz...	Recipes for Continuation	
Deano	Computing highly oscillatory integrals	
Datta	Numerical Linear Algebra with Applications	2
Dold	Singularities and constructive methods for their treatment	
Dolean...	An Introduction to Domain Decomposition Methods	
Elden	Matrix methods in data mining and pattern recognition	
Faddeeva	Computational Methods of Linear Algebra	
Fengler	Vector spherical ahrmonics and ... Galerkin schemes	

Fichera	Numerical and Quantitative Analysis	2
Fornberg...	A Primer on Radial Basis Functions with Applications to Geophysics	
Forsythe	Finite-difference methods for PDEs	
Froberg	Introduction to Numerical Analysis	
Gautschi	A software depository for Gaussian quadratures and Christoffel functions	
Glasse	Numerical Computation Using C	
Glowinsky...	Domain Decomposition Methods for Partial Differential Equations	
Glowinsky...	Variational methods for the numerical solution of nonlinear elliptic problems	
Golub...	Matrix Computations	
Greenbaum...	Numerical Methods	
Griffiths	Numerical analysis using R. Solutions to ODEs and PDEs	
Greenspan	Introductory Numerical Analysis of Elliptic Boundary Value Problems	
Gupta	Elements of Numerical Analysis	2
Hadley	Linear programming	
Hamming	Numerical Methods for Scientists and Engineers	
Hansen...	Least Squares Data Fitting	
He	Dimensionality reducing expansion of multivariate integration	
Henrici	Error Propagation for Difference Methods	
Henrici	Discrete variable methods in ODEs	
Hesse	Domain decomposition methods in..geopotential	
Hildebrand	Introduction to Numerical Analysis	
Hoffman	Numerical Methods for Engineers and Scientists	3
Hollig	Approximation and Modeling with B-Splines	
Householder	The Theory of Matrices in Numerical Analysis	
Huang	Structure-Preserving Doubling Algorithms for Nonlinear Matrix Equations	
Huckle	Bits and bugs. A historical review of software failures	See 00
Hughes	The Finite Element Method	
Isaacson...	Analysis of Numerical Methods	
Iske	Tutorial on multiresolution in geometric modeling	
Iske	Multiresolution methods in scattered data modeling	
Jaswon...	Integral Equation Methods in in Potential Theory and Elastostatics	
Jensen	Methods of Computation	
Johnson	Linear algebra with Maple V	
Kanschat...	Numerical Methods in Multidimensional Radiative Transfer	

Keller	Numerical Solutions for Two Point Boundary Value Problems	2
Kevorkian...	Multiple Scale and Singular Perturbation Methods	
Kukudzhanov	Numerical Continuum Mechanics	
Kunis	Nonequispaced FFT	
Kuzmin...	Finite Element Methods for Computational Fluid Dynamics	
Lapidus...	Numerical Solution of Partial Differential Equations in Science and Engineering	
Li...	Numerical Methods for Fractional Calculus	
Li...	Theory and numerical approximations of fractional integrals and derivatives	
Linz	Analytical and Numerical Methods for Volterra Equations	
Malek...	Preconditioning and Conjugate Gradient Method in the Context of Solving PDEs	
Maugin	Continuum Models and Discrete Systems v1	
Maugin	Continuum Models and Discrete Systems v2	
McKibben	Differential equations with MATLAB	
McCormick	Multigrid Methods	
McCormick	Multilevel adaptive methods for PDEs	
Nassif...	Introduction to Numerical Analysis and Scientific Computing	
Nielsen	Methods in Numerical Analysis	2
Olshanskii...	Iterative Methods for Linear Systems	
Ortega	Solution of PDEs on vector and parallel computers	
Ostrowski	Solution of equations and systems of equations	
Owhadi	Operator-adapted wavelets, fast solvers, and numerical homogenization	
Paige (ed)	Simultaneous linear equations and the determination of eigenvalues	
Pearson	Mining imperfect data	
Potis...	Finite Element Applications with Microcomputers	
Press...	Numerical Recipes in C	2
Press	Numerical Recipes in Fortran	
Pizer	Numerical computing and Math Analysis	
Ralston	A first course in numerical analysis	
Ray	Numerical Analysis with Algorithms and Programming	
Riess	Numerical Analysis	
Rowland	Methods of computation	
Sabelfeld...	Monte Carlo Methods and Applications	
Schumaker	Spline Functions	
Sethian	Level Set Methods and Fast Marching Methods	
Sidi	Vector Extrapolation Methods with Applications	
Smith	Elementary Numerical Analysis	

Smith	Numerical Solution of Partial Differential Equations:Finite Difference Methods	
Smith	Domain decomposition	
Strikwerda	Finite Difference Schemes and Partial Differential Equations	2
Succi	The Lattice Boltzman Equation	
Surzhikov	Computational Physics of Electric Discharges in Gas Flows	
Todd	Survey of Numerical Analysis	
Toledo	Location estimation from the ground up	
Trangenstein	Numerical Solution of Elliptic and Parabolic Partial Differential Equations	
Trefethen	Spectral Methods in Matlab	2
Van Loan	Computational frameworks for FFT	
Vichnevetsky ...	Fourier Analysis of Numerical Approximations of Hyperbolic Equations	
Voight...	Spectral Methods for Partial Differential Equations	
Wang...	Computational Methods for Applied Inverse Problems	
Weeg...	Introduction to Numerical Analysis	
Wendorff	First Principles of Numerical Analysis	
Wilkinson	The algebraic eigenvalue problem	
Young...	A Survey of Numerical Mathematics v1	2
Young...	A Survey of Numerical Mathematics v2	

88	Computer science, software	5b
Author	Title	#
Aho	Data structures and algorithms	
Aho	The design and analysis of computer algorithms	
AMS	Mathematical Aspects of Electrical Network Analysis	
AMS	Proceedings of Symposia in Applied Mathematics: Experimental Arithmetic, High Speed Computing and Mathematics	
Argunov, B. I.	Configuration Theorems	
Chapman	Fortran 90/95	
Chen, Lidong	Communication System Security	
Corberan, Angel	Arc Routing Problems, Methods, Applications	
Corless, M.	AIMD Dynamics and Distributed Resource Allocation	
Crandall	Algorithmic reflections: Selected works	
Dolan, Alan	Networks and Algorithms an Introductory Approach	
Epstein, Richard	Computability Computable Functions, Logic, and The Foundations of Mathematics	
Feitelson, Dror	Workload Modeling for Computer Systems Performance Evaluation	
Flynn, Michael J.	Computer Architecture	
Foley	Fundamentals of interactive computer graphics	
Foley	Computer graphics	
Garret, Paul	Making, Breaking Codes	2
Gilat	MATLAB	3
Goresky, Mark	Algebraic Shift Register Sequences	
Greene, Daniel.	Mathematics for the Analysis of Algorithms	
Haggard, Gary	Discrete Mathematics for Computer Science	
Hays	Intro. To computational linguistics	
Hermann, Robert	Geometric Computing Science First Steps	
Iyengar, S.S.	Oblivious Network Routing	
Koch, Thorsten	Evaluating Gas Network Capacities	
Logachev, O.A.	Boolean Functions in Coding Theory and Cryptography	
Maurer	Discrete Algorithmic Mathematics	
McArthur.	From Logic to Computing	

Metcalf	Fortran 90/95 explained	
Michal, Karonski	Random Structures and Algorithms	
NAG	NAGWare compilers and tools	
Pal, Sankar K.	Handbook on Soft Computing for Video Surveillance	
Pop, Petrica C.	Generalized Network Design Problems	
Pratap	Matlab 7	
Roberts, Fred	Reliability of Computer and Communication Networks	
Schatz, James R	Selecta of Mathematical Papers	
Soardi, Paolo M.	Potential Theory on Infinite Networks	
Van Count Hare Jr.	Systems Analysis: a Diagnostic Approach	
Wolfram	Matematica	

Mechanics of Particles and Systems

Author (Ed)	Title	#
Arnold	Mathematical Methods of Classical Mechanics	
Bonet, Gil, Wood	Nonlinear Solid Mechanics for Finite Element Analysis: Statistics	
Broek	Elemental Engineering Fracture Mechanics	
Chung	General Continuum Mechanics	
Engelbrecht	Nonlinear Wave Processes of Deformation in Solids	2
Ericksen	Introduction to the thermodynamics of solids	
Goldstein	Classical mechanics	
Guazelli, Morris	A physical introduction to suspension dynamics	
Kannien, Atluri	dynamic fracture mechanics	
Kolsky	stress in solids	
Lagzdins et al	orientation averaging in mechanics of solids	
Lanczos	the variation principles of mechanics	
Landau, Lifshitz	mechanics	
Lardner	mathematical theory of dislocation and fractures	
Lawn	fracture of brittle solids	
Lemaitre, Chaboche	mechanics of solid materials	
Liu	continuum mechanics	
MacMillan	statics and the dynamics of a particle	
MacMillan	dynamics of rigid bodies	
MacMillan	strength of materials	
Marion	Classical dynamics of particles and systems	2
Osgood	mechanics	
Parton, Morozov	Elastic-plastic fracture mechanics	
Ravi-Chandar, Vogler	IUTAM symposium on dynamic fracture and fragmentation	
Riggs	applied mechanics	
Rosser, Newton, Gross	mathematical theory of rocket flight	
Schneider	Trends in applications mathematics to mechanics	
Segel	mathematical applications to continuum mechanics	
Sih	mechanics of fracture 1: methods of analysis and solutions of crack problems	
Suquet	continuum mechanics	
Sussman, Wisdom	structure and interpretation of classical mechanics	
Symon	mechanics	

Tayler	mathematical models in applied mechanics	
Wegner, Haddow	elements of contiuum mechanics and thermodynamics	
Wood	the elements of analytical mechanics	
Wood	elementary mechanics	

74:	Mechanics of deformable solids	5a
Author (Ed)	Title	#
Bisplinghoff	Principles of Aeroelasticity	
Chadwick	Contium Mechanics: concise theory and problems	
Cherkaev, Kohn	Topics in the mathematical modeling of composite materials	
Erdogan	the mechanics of fractures	
Fabrizio, Morro	mathematical problems in linear viscoelasticity	
Findley,	Creep and Relaxation of nonlinear viscoelastic materials	
Flugge	Viscoelasticity	
Fu, Ogden	Nonlinear Elasticity	
Golden, Graham	Boundary Value problems in linear viscoelasticity	
Gould	Introduction to linear elasticity	
Graham, Walton	Crack and contact problems for viscoelastic bodies	
Gross	mathematical structures of the theories of viscoelasticity	
Gurtin	topics in finite elasticity	
Kostin, Saurin	integrodifferential relations in linear elasticity	
Hlavacek et al	solutions of variation inequalities in mechanics	
Lockett	nonlinear viscoelastic solids	
Love	a treatise on the mathematical theory of elasticity	
Maugin	the thermomechanics of plasticity and fracture	
Mikhlin, Morozov	the integral equations of the theory of elasticity	
Morse, Ingard	theoretical acoustics	
Nowacki	stress waves in nonelastic solids	
Pipkin	lectures on viscoelastic theory	
Rayleigh	Theory of sound, v. 1	
Renardy	mathematical analysis of viscoelastic flows	
Slattery	interfacial transport phenomena	
Le Taller	numerical analysis of viscoelastic problems	
Timoshenko	theory of elasticity	
de Veubeke	a course in elasticity	

Author/Editor	Title	#
Andreev et al	Mathematical Models of convection	
Aref,	A first course in computation fluid dynamics	
Arsenio	From Vlasov ... to incompressible viscous electro-magneto-dynamics V1	
Balasuriya	Barriers and transport in unsteady flows: a Melnikov Approach	
Batchelor	An introduction to fluid dynamics	
Birkhoff	Hydrodynamics	
Bormashenko	Wetting of real surfaces	
Chang	unsteady transonic flow	
Chipot	variational inequalities and flow in porous media	
Chorin, Marsden	a mathematical introduction to fluid mechanics	
Courant	Supersonic flow and shock waves	
Van Dyke	an album of fluid motion	
Van Dyke	perturbation methods in fluid mechanics	
Goldstein	modern developments in fluid dynamics volume 1	
Goldstein	modern developments in fluid dynamics volume 1	
Goldstein	modern developments in fluid dynamics volume 2	
Graham	Microhydrodynamics, Brownian motion and complex fluids	
Gray, Miller	Introduction to the thermodynamically constrained averaging theory for porous medium systems	
Gustafsson	Classical and stochastic laplacian growth	
Isett	holder continuous Euler flows in three dimensions with compact support in time	
Jeans	the dynamical theory of Gases	
Joseph	fluid dynamics of viscoelastic liquid	
Ladyzhenskaya	The mathematical theory of viscous incompressible flow	
Lamb	hydrodynamics	
Landau, Lifshitz	fluid mechanics	
Lemasie-Rieusset	the Navier-Stokes problem in the 21century	

Lions	mathematical topics in fluid mechanics volume 1: incompressible models	
Majda, Bertozzi	vorticity and incompressible flow	
Majda, Harlim	filtering complex turbulent systems	
McFadden	an artificial viscosity method	
Meyer	introduction to mathematical fluid dynamics	
Milne, Thomson	theoretical aerodynamics	
Milne, Thomson	theoretical hydrodynamics	
Moffatt	Self-exciting fluid dynamics	
Pedlosky	Geophysical fluid dynamics	
Prandtl, Tietjens	fundamentals of hydro- and aeromechanics	2
Prandtl	applied hydro- and aeromechanics	
Robinson	mathematical aspects of fluid mechanics	
Robinson et al	recent progress in the theory of the Euler and Navier-Stokes equation	
Romatschke	Relativistic fluid dynamics in and out of equilibrium	
Stoker	Water waves	
Temam	Navier-Stokes equation and nonlinear functional analysis	2
Triebel	PDE models for chemotaxis and hydrodynamics in supercritical functional spaces	
Triebel	Hybrid functional spaces, heat and Navier-Stokes equation	
Triebel	Local functional spaces, heat and Navier- Stokes equation	
Whitham	Linear and non-linear waves	2
Zhang	Theory and modeling of rotating fluids	

78	Optics. Electromagnetics	5a
Author	Title	copies
Frank	Introduction to Electricity and Optics	
Carrity	Electricity and Magnetism for Mathematicians	
Ghirardi	Radio Physics Course	
Jackson	Classical Electrodynamics	
Milford	Foundations of electromagnetic theory	
Purcell	Electricity and magnetism (Berkeley)	
Ramsey	Electricity and Magnetism	
Rietz	Optics. Electromagnetics	
Rossi		

81	<u>Quantum theory</u>	5a
Author	Title	copies
Bjorken	Relativistic Quantum Mechanics	
Blumenhagen	Basic Concepts of String Theory	
Burenin	Symmetry of Intramolecular Quantum Dynamics	
Byrd	Paths to Dark Energy	
Cardona	Geometric and Topological Methods for Quantum Field Theory	
Casalderrey-Solana	Gauge/String Duality, Hot QCD and Heavy Ion Collisions	
Cheng	gauge theory of elementary particle physics	
Costello	Factorization Algebras in Quantum Field Theory	
Dereziński	Mathematics of Quantization and Quantum Fields	
deWitt	Quantum field theory in curved spacetime	
Drechsler	Fiber bundle techniques in gauge theories	
Ebrahimi-Fard	Faà di Bruno Hopf Algebras, Dyson-Schwinger Equations, and Lie-Butcher Series	
Glasstone	The Effects of Nuclear Weapons	
Gough	Quantum fields and processes	
Holevo	Quantum Systems, Channels, Information	
Jacobs	Quantum measurement theory	
Jayant	Waveform Quantization and Coding	
Karasev	Coherent transform, quantization, and Poisson geometry	
Landau	Quantum Mechanics (Non-relativistic Theory)	
Livingston	Particle Physics	
Lorentz	Theory of Electrons	
Mackey	Mathematical foundations of quantum mechanics	
Mnev	Quantum field theory: Batalin-Volkovskiy formalism	see AMS vol
Neumann	Quantenmechanik	
Oppo	Quantum Dynamics of Simple Systems	
Paugam	Towards the Mathematics of Quantum Field Theory	
Pauling	Introduction to Quantum mechanics	
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