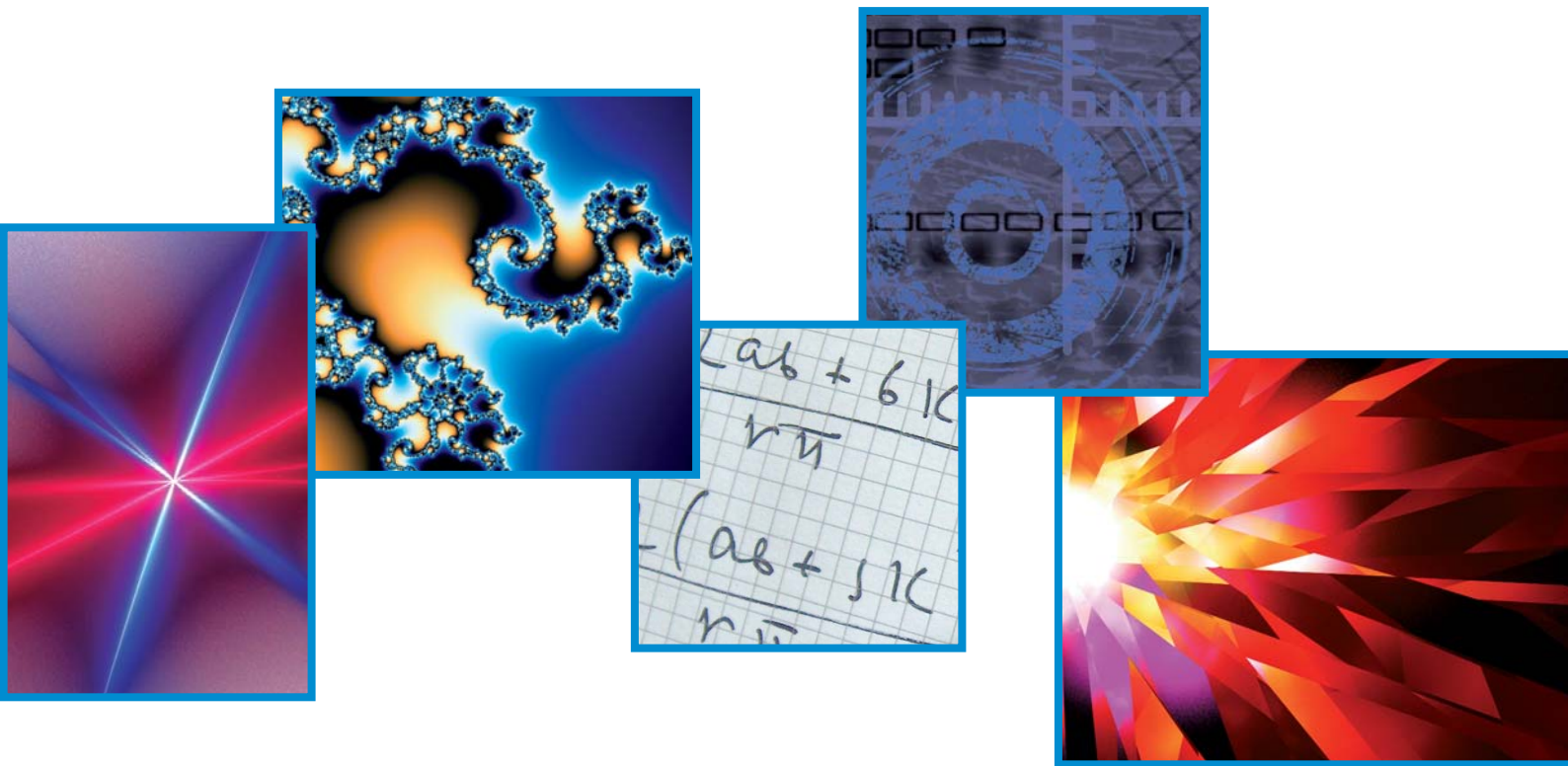


Mathematics

Journals

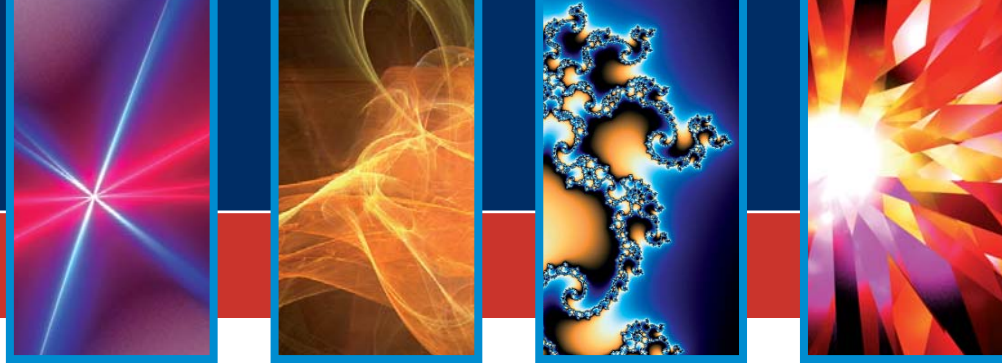
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ALGEBRA

Communications in Algebra®

Editor-in-Chief: Lance W. Small, UCSD, USA

Volume 37, 2009, 12 issues per volume
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Communications in Algebra® gives the reader access to the competitively rapid publication of important articles of timely and enduring interest that have made this journal the premier international forum for the exchange of keystone algebraic ideas. All areas of algebraic research are covered, including classical number theory and algebraic geometry.

Linear and Multilinear Algebra

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Volume 57, 2009, 8 issues per volume
Print ISSN: 0308-1087, Online ISSN: 1563-5139

This journal publishes original research papers that advance the study of linear and multilinear algebra, or that apply the techniques of linear and multilinear algebra in other branches of mathematics and science. The Journal also publishes research problems, survey articles and book reviews of interest to researchers in linear and multilinear algebra. Appropriate areas include, but are not limited to: spaces over fields or rings, tensor algebras, nonnegative matrices, inequalities in linear algebra, combinatorial matrix theory, numerical linear algebra, representation theory, Lie theory, invariant theory and operator theory. The audience for *Linear and Multilinear Algebra* includes both industrial and academic mathematicians.

ANALYSIS

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An International Journal

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Editors-in-Chief: Robert P. Gilbert, University of Delaware, USA and Yongzhi Steve Xu, University of Louisville, USA

Volume 88, 2009, 12 issues per volume
Print ISSN: 0003-6811, Online ISSN: 1563-504X

This journal is concerned primarily with analysis that has application to scientific and engineering problems. Papers should indicate clearly an application of the mathematics involved. On the other hand, papers that are primarily concerned with modeling rather than analysis are outside the scope of the Journal. General areas of analysis that are welcomed contain the areas of differential and integral equations, nonlinear analysis, applied functional analysis, theoretical numerical analysis and approximation theory. Areas of application, for instance, include the use of homogenization theory for electromagnetic phenomena, acoustic vibrations and other problems with multiple space and time scales, inverse problems for medical imaging and geophysics, variational methods for moving boundary problems, convex analysis for theoretical mechanics and analytical methods for spatial bio-mathematical models.

Communications in Partial Differential Equations®

Editors-in-Chief: R. Mazzeo, Stanford University, USA and P. E. Souganidis, University of Texas at Austin, USA

Volume 34, 2009, 12 issues per volume
Print ISSN: 0360-5302, Online ISSN: 1532-4133

Impact Factor: 1.041

Communications in Partial Differential Equations® publishes high quality papers concerning any theoretical aspect of partial differential equations, as well as its applications to other areas of mathematics. We seek to present the most significant advances in this central field to a wide readership which includes researchers and graduate students in mathematics and the more mathematical aspects of physics and engineering.

Complex Variables and Elliptic Equations

An International Journal

Editor-in-Chief: Robert P. Gilbert, University of Delaware, USA
Senior Editors: Heinrich Begehr, Freie Universität Berlin, Germany, Massimo Lanza de Cristoforis, University of Padova, Italy and Der-Chen Chang, Georgetown University, USA

Volume 54, 2009, 12 issues per year
Print ISSN: 1747-6933, Online ISSN: 1747-6941

Complex Variables and Elliptic Equations is devoted to complex analytic methods in partial differential, function theory of several complex variables, linear and nonlinear potential theory including sub- and super-harmonic functions, generalized function theory, Clifford and quaternionic analysis, elliptic and subelliptic equations including linear and nonlinear equations and systems, hypoelliptic equations, analysis on Lie groups, symmetric spaces, homogeneous spaces and CR-manifolds and systems, variational methods and applications.

Integral Transforms and Special Functions

Editor-in-Chief: E. Moiseev, Russian Academy of Sciences, Russia
Associate Editors:

H.-J. Glaeske, Friedrich-Schiller-Universität, Germany,
H. M. Srivastava, University of Victoria, Canada and
Vu Kim Tuan, University of West Georgia, USA

Volume 20, 2009, 12 issues per year
Print ISSN: 1065-2469, Online ISSN: 1476-8291

Integral Transforms and Special Functions belong to the basic subjects of mathematical analysis, the theory of differential and integral equations, approximation theory, and to many other areas of pure and applied mathematics. Although centuries old, these subjects are under intense development, for use in pure and applied mathematics, physics, engineering and computer science. This stimulates continuous interest for researchers in these fields. The aim of *Integral Transforms and Special Functions* is to foster further growth by providing a means for the publication of important research on all aspects of the subjects.



Journal of Difference Equations and Applications

The official journal of the International Society for Difference Equations (ISDE)

Editors: *Saber Elaydi*, Trinity University, USA and *Gerry Ladas*, University of Rhode Island, USA

Volume 15, 2009, 12 issues per volume
Print ISSN: 1023-6198, Online ISSN: 1563-5120

Journal of Difference Equations and Applications presents state-of-the-art papers on difference equations and the academic, pure and applied problems in which they arise. The Journal is composed of original research, expository and review articles, and papers that present novel concepts in application and techniques.

Sequential Analysis

Editor-in-Chief: *Nitis Mukhopadhyay*, University of Connecticut-Storrs, USA

Volume 28, 2009, 4 issues per volume
Print ISSN: 0747-4946, Online ISSN: 1532-4176

Sequential Analysis is an interdisciplinary refereed journal committed to contributing to theoretical and applied aspects of sequential methodologies in all areas of statistical science. Published papers highlight the development of new and important sequential approaches. Interdisciplinary articles that emphasize the methodology of practical value to applied researchers and statistical consultants are highly encouraged.

COMPUTER MATHEMATICS

Cryptologia

Editor-in-Chief: *Craig Bauer*, York College of Pennsylvania, USA

Volume 33, 2009, 4 issues per volume
Print ISSN 0161-1194, Online ISSN 1558-1586

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Cryptologia is the only scholarly journal in the world dealing with the history, the technology, and the effect of the most important form of intelligence in the world today – communications intelligence. The Journal's articles have explored many new paths in both technical and mathematical cryptology, computer security, and intelligence history by fostering the study of all aspects of the field, including the historical and cultural.

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International Journal of Computer Mathematics

INCREASE IN PAGES IN 2009!

Editors-in-Chief: *G. Loizou*, University of London, UK and *C.-H. Lai*, University of Greenwich, London, UK

Volume 86, 2009, 12 issues per volume
Print ISSN: 0020-7160, Online ISSN: 1029-0265

Section A: Computer Systems: Theory

This section contains work concerning research and development in computer systems and the theory of computing in general. Papers relating directly or indirectly to all aspects of these fields are welcome. Of great interest is work in computer systems architectures and organization, computer software and hardware, analysis of algorithms, artificial intelligence, automata, bio-informatics, brain-computer interfaces, calculi, computational complexity, computational aspects of combinatorics and graph theory, computational geometry, computer graphics, computer security, concurrency and parallelism, cryptography, data structures, formal languages, haptics, knowledge discovery, computational logic, networks, novel models of computation such as DNA and quantum computing, randomization, semantics, symbol manipulation and the Internet. The Journal is intended to provide a forum for the expression of new ideas, as well as a place for exposition of these areas of knowledge.

Section B: Computational Methods: Application

This section publishes original work concerning numerical and mathematical techniques that are of interest to computer users in the fields of numerical analysis, mathematical software and applied mathematics. Papers that describe and analyse new numerical techniques for various applied mathematical problems are welcome.

Papers that provide improved analyses of existing numerical algorithms are also welcome.

International Journal of Distributed Sensor Networks

Editor: *S. S. Iyengar*, Louisiana State University, USA

Volume 5, 2009, 6 issues per volume
Print ISSN 1550-1329, Online ISSN 1550-1477

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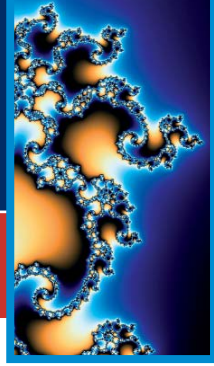
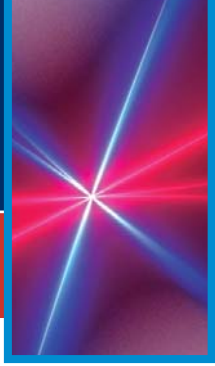
International Journal of Distributed Sensor Networks is an essential medium for the exchange of information regarding the impact of distributed sensor network research. This journal publishes research that impacts the development of high performance computing solutions to problems arising from the complexities of these sensor network systems. Articles highlight advances in uses of distributed sensor network systems for solving computational tasks in manufacturing, engineering, and environmental systems.

International Journal of Parallel, Emergent and Distributed Systems

Editor-in-Chief: *Ivan Stojmenovic*, University of Ottawa, Canada

Volume 24, 2009, 6 issues per year
Print ISSN: 1744-5760, Online ISSN: 1744-5779

International Journal of Parallel, Emergent and Distributed Systems aims to publish high quality scientific papers arising from original research and development from the international community in the areas of parallel, emergent and distributed systems.



DYNAMICAL SYSTEMS

Dynamical Systems

An International Journal

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Editors-in-Chief: Peter Ashwin, *University of Exeter, UK* and
Matthew Nicol, *University of Houston, USA*

Volume 24, 2009, 4 issues per volume
Print ISSN: 1468-9367, Online ISSN: 1468-9375

The primary goal of *Dynamical Systems: An International Journal* (founded as *Dynamics and Stability of Systems*) is to act as a forum for communication across all branches of modern dynamical systems, and especially to facilitate interaction between theory and applications. This journal aims to publish high quality research articles in the theory and applications of dynamical systems, especially but not exclusively nonlinear systems. Advances in the following topics will be addressed by the Journal:

- Applications in technology, in engineering and natural and life sciences
- Bifurcation theory
- Differential equations
- Hamiltonian and Lagrangian dynamics
- Hyperbolic dynamics
- Ergodic theory
- Topological and smooth dynamics
- Random dynamical systems

Mathematical and Computer Modelling of Dynamical Systems

Methods, Tools and Applications in Engineering and Related Sciences

Editor-in-Chief: I. Troch, *Vienna University of Technology, Austria*

Volume 15, 2009, 6 issues per volume
Print ISSN: 1387-3954, Online ISSN: 1744-5051

The derivation, combination, simplification and validation of models and sub-models are the main topics of this journal which provides an international forum for the presentation of new ideas in modelling and for the exchange of experience and knowledge through descriptions of specific applications. Original work will be published as regular papers or short notes dealing with a range of topics including the following:

- Processes and methods for model formulation, identification, development, reduction and validation etc. (including guidelines and check lists)
- Automation of modelling and software aid for modelling
- The relationship between computational/simulation methods, the underlying mathematical formulation and real-world modelling problems
- Comparisons of methods for modelling, model reduction and model validation
- Effects of modelling errors on overall performance of engineering system (e.g. relationship between modelling and control design)
- Applications in the field of engineering systems and other fields (such as environmental systems, biotechnology etc.) provided the methods or ideas presented are relevant in a number of areas or are of interest from a theoretical point of view

HISTORY & PHILOSOPHY OF MATHEMATICS

Annals of Science

Editor: T. H. Levere, *University of Toronto, Canada*

Volume 66, 2009, 4 issues per volume
Print ISSN: 0003-3790, Online ISSN: 1464-505X

Annals of Science was launched in 1936 and is now established as the leading scholarly journal in the field. Its scope has widened to cover the history of technology and medicine, as well as developments since classical antiquity, and to include articles in French and German. Contributions from Australia, Canada, China, France, Germany, Greece, Hungary, Italy, Japan, the USA and Russia bear testimony to its international appeal. Each issue includes a comprehensive book reviews section and essay reviews on a group of books on a broader level. The Editor is supported by an active international board. A unique feature of the Journal is the reproduction of selected illustrations in colour.

BSHM Bulletin

Journal of the British Society for the History of Mathematics

Editor: Jackie Stedall, *The Queen's College, Oxford, UK*

Volume 24, 2009, 3 issues per volume
Print ISSN: 1749-8430, Online ISSN: 1749-8341

BSHM Bulletin is the journal of the British Society for the History of Mathematics (BSHM), whose aims are to promote research into the history of mathematics and to encourage its use at all levels of mathematics education. The *BSHM Bulletin* publishes articles, reports, and book reviews on a range of historical topics. Articles on local mathematical history, the use of history of mathematics in education, and those reflecting individual interests and research are particularly encouraged.

History and Philosophy of Logic

Editors-in-Chief: John Dawson, *York, PA, USA* and **Volker Peckhaus**, *Universität Paderborn, Germany*

Volume 30, 2009, 4 issues per volume
Print ISSN: 0144-5340, Online ISSN: 1464-5149

This journal contains articles, notes and book reviews dealing with the history and philosophy of logic. 'Logic' is understood to be any volume of knowledge which was regarded as logic at the time in question. 'History' refers back to ancient times and also to work in this century; however, the Editor will not accept articles, including review articles, on very recent work on a topic. 'Philosophy' refers to broad and general questions: specialist articles which are now classed as 'philosophical logic' will not be published.



INVERSE PROBLEMS

Inverse Problems in Science and Engineering

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Founder and Editor-in-Chief: George S. Dulikravich, Florida International University, USA

Volume 17, 2009, 8 issues per volume
Print ISSN: 1741-5977, Online ISSN: 1741-5985

Inverse Problems in Science and Engineering provides an international forum for the discussion of conceptual ideas and methods for the practical solution of applied inverse problems. The Journal aims to address the needs of practising engineers and scientists and to serve as a focal point for the quick communication of ideas. Topics include:

- Shape design: determination of shape, size and location of domains (shape identification or optimization in acoustics, aerodynamics, electromagnets, etc; detection of voids and cracks).
- Material properties: determination of physical properties of media.
- Boundary values/initial values: identification of the proper boundary conditions and/or initial conditions (tomographic problems involving X-rays, ultrasonics, optics, thermal sources etc; determination of thermal, stress/strain, electromagnetic, fluid flow etc. boundary conditions on inaccessible boundaries; determination of initial chemical composition, etc.).
- Forces and sources: determination of the unknown external forces or inputs acting on a domain (structural dynamic modification and reconstruction) and internal concentrated and distributed sources/sinks (sources of heat, noise, electromagnetic radiation, etc.).
- Governing equations: inference of analytic forms of partial and/or integral equations governing the variation of measured field quantities.

MATHEMATICAL BIOLOGY

Computational and Mathematical Methods in Medicine

An Interdisciplinary Journal of Mathematical, Theoretical and Clinical Aspects of Medicine

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Editors: Brian Sleeman, University of Leeds, UK and Pamela Jones, University of Leeds, UK

Volume 10, 2009, 4 issues per volume
Print ISSN: 1748-670X, Online ISSN: 1748-6718

The Journal seeks to promote genuine interdisciplinary collaboration between those interested in the theoretical and clinical aspects of medicine and to foster and encourage the application of mathematics to problems arising from the biomedical sciences. Areas of interest include gene therapy, cell kinetics, pharmacokinetics, chemotherapy, oncology, developmental biology, wound healing, physiology, heart modelling, cardiovascular and lung dynamics, neurobiology, computational neuroscience, biomechanics, biomedical statistics, image analysis, epidemiology, immunology, time series analysis, extracellular matrix properties and signalling, and tissue engineering.

Journal of Biological Dynamics

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Editors-in-Chief: J. M. Cushing, University of Arizona, USA and Saber N. Elaydi, Trinity University, USA

Volume 3, 2009, 6 issues per volume
Print ISSN: 1751-3758, Online ISSN: 1751-3766

Journal of Biological Dynamics publishes state-of-the-art papers dealing with the analysis of dynamic models that arise from biological processes. The Journal focuses on dynamic phenomena, at scales ranging from the level of individual organisms to that of populations, communities, and ecosystems, that arise in the fields of ecology and evolutionary biology, population dynamics, epidemiology, immunology, environmental science, and animal behavior. Papers in other areas are acceptable at the editors' discretion. In addition to papers that analyze original mathematical models and develop new theories and analytic methods, the Journal welcomes papers that connect mathematical modeling and analysis to experimental and observational data.

MATHEMATICAL EDUCATION

International Journal of Mathematical Education in Science and Technology

Editor: Martin Harrison, Loughborough University, UK

Volume 40, 2009, 8 issues per volume
Print ISSN: 0020-739X, Online ISSN: 1464-5211

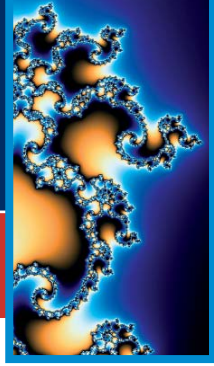
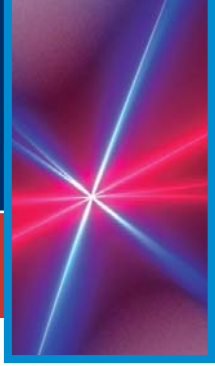
International Journal of Mathematical Education in Science and Technology provides a medium by which a wide range of experience in mathematical education can be presented, assimilated and eventually adapted to everyday needs in schools, colleges, polytechnics, universities, industry and commerce. Contributions will be welcomed from lecturers, teachers and users of mathematics at all levels on the contents of syllabuses and methods of presentation. Increasing use of technology is being made in the teaching, learning, assessment and presentation of mathematics today; original and interesting contributions in this new rapidly developing area will be especially welcome. Mathematical models arising from real situations, the use of computers, new teaching aids and techniques also form an important feature. A novel feature of the Journal is the Classroom Notes section. This section is for shorter articles, which are often just new ideas for the mathematics teacher to use in teaching.

Mathematical Thinking and Learning

Editor: Lyn D. English, Queensland University of Technology, Australia

Volume 11, 2009, 4 issues per year
Print ISSN: 1098-6065, Online ISSN: 1532-7833

The international mathematics education community is maturing at a rapid and exciting rate. Although this community has developed its own research perspectives and theoretical frameworks, it continues to expand its horizons by drawing upon new theories and research in mathematics, psychology, sociology, philosophy, anthropology, and information technology. *Mathematical Thinking and Learning* is directed at researchers interested in mathematics education from any of these perspectives, with a particular focus on mathematical thinking, reasoning, and learning.



PRIMUS

Problems, Resources, and Issues in Mathematics Undergraduate Studies

Editor-in-Chief: Brian Winkel, United States Military Academy, USA

Volume 19, 2009, 6 issues per volume
Online ISSN: 1935 4053, Print ISSN: 1051-1970

PRIMUS is a rich forum for the exchange of ideas in mathematics education at the college level. Now publishing six times per year, the Journal is devoted to providing dialogue among those interested in teaching undergraduate mathematics. This includes those who prepare students for college level mathematics, those who teach college level mathematics, and those who receive students who have been taught college level mathematics.

Research in Mathematics Education

The Official Journal of the British Society for Research into Learning Mathematics.

Editors: Elena Nardi, University of East Anglia, UK and Tim Rowland, University of Cambridge, UK

Volume 11, 2009, 2 issues per year
Print ISSN: 1479-4802, Online ISSN: 1754-0178

Research in Mathematics Education is an international English language journal, publishing original refereed articles on all aspects of mathematics education. Papers should address the central issues in terms which are of relevance across educational systems and informed by wider thinking in the field.

MATHEMATICAL FINANCE

Applied Financial Economics

Editor: Mark P. Taylor, University of Warwick, UK

Volume 19, 2008, 24 issues per year
Print ISSN: 0960-3107, Online ISSN: 1466-4305

Applied Financial Economics is a peer-reviewed journal providing an international forum for applied research on financial markets, including the bond and equity markets, derivative securities markets, the foreign exchange market, corporate finance, market microstructure and cognate areas. The Journal is also concerned with the link between the real and financial sides of the economy, forecasting and recent developments in econometric techniques applicable to financial research.

Applied Mathematical Finance

Co-Editors-in-Chief: Ben Hambly, University of Oxford, UK and William Shaw, King's College London, UK

Volume 16, 2009, 6 issues per year
Print ISSN: 1350-486X, Online ISSN: 1466-4313

The Journal encourages the confident use of applied mathematics and mathematical modelling in finance. The Journal publishes papers on the following:

- modelling of financial and economic primitives (interest rates, asset prices etc.)
- modelling market behaviour
- modelling market imperfections
- pricing of financial derivative securities
- hedging strategies
- numerical methods
- financial engineering

The Journal encourages communication between finance practitioners, academics and applied mathematicians. Both theoretical and empirical research welcomed, as are papers on emerging areas of mathematical finance and interdisciplinary topics. The Journal seeks papers reviewing the development of significant practical tools, algorithms and new products. The modelling or solution of problems should demonstrate the capacity for generalization. Original and substantial pieces of research resulting in open problems are welcome; this will also be a forum for the airing of new problems and new areas of activity.

Econometric Reviews

Editor-in-Chief: Esfandiar Massoumi, Emory University, USA

Volume: 28, 2009, 6 issues per volume
Print ISSN: 0747-4938, Online ISSN: 1532-4168

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Econometric Reviews probes the limits of econometric knowledge, featuring regular, state-of-the-art refereed articles and book reviews, as well as retrospective, critical, and readable surveys of current or developing topics. Special issues of the Journal are developed by a world-renowned editorial board which brings together leading experts on a variety of specific themes in econometrics.

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Quantitative Finance

Joint Editors-in-Chief: *Jean-Philippe Bouchaud*, *Science & Finance, Capital Fund Management, Paris and CEA Saclay, Orme des Merisiers, France* and *Michael Dempster*, *Centre for Mathematical Sciences, University of Cambridge and Cambridge Systems Associates Limited, UK*

Volume 9, 2009, 8 issues per year
Print ISSN: 1469-7688, Online ISSN: 1469-7696

The frontiers of finance are shifting rapidly, driven in part by the increasing use of quantitative methods in the field. **Quantitative Finance** welcomes original research articles that reflect the dynamism of this area. The Journal provides an interdisciplinary forum for presenting both theoretical and empirical approaches and offers rapid publication of original new work with high standards of quality. The readership is broad, embracing researchers and practitioners across a range of specialisms and within a variety of organizations.

Scandinavian Actuarial Journal

Editors: *Boualem Djehiche*, *Royal Institute of Technology, Stockholm, Sweden*, *Lasse Koskinen*, *Insurance Supervisory Authority of Finland*, *Walter Neuhaus*, *Zabier-Neuhaus AS, Haslum, Norway* and *Mogens Steffensen*, *Institute of Mathematical Sciences, Copenhagen, Denmark*

Volume 11, 2009, 4 issues per year
Print ISSN: 0346-1238, Online ISSN: 1651-2030

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Scandinavian Actuarial Journal is a journal for actuarial sciences that deals, in theory and application, with mathematical methods for insurance and related matters.

The bounds of actuarial mathematics are determined by the area of application rather than by uniformity of methods and techniques. Therefore, a paper of interest to **Scandinavian Actuarial Journal** may have its theoretical basis in probability theory, statistics, operations research, numerical analysis, computer science, demography, mathematical economics, or any other area of applied mathematics; the main criterion is that the paper should be of specific relevance to actuarial applications.

The European Journal of Finance

Editor: *Chris Adcock*, *University of Sheffield, UK*

Volume 15, 2009, 8 issues per year
Print ISSN: 1351-847X, Online ISSN: 1466-4364

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The European Journal of Finance publishes a full range of research into theoretical and empirical topics in finance. The emphasis is on issues that reflect European interests and concerns. The Journal aims to publish work that is motivated by significant issues in the theory or practice of finance.

The Journal promotes communication between finance academics and practitioners by providing a vehicle for the publication of research into European issues, stimulating research in finance within Europe, encouraging the international exchange of ideas, theories and the practical application of methodologies and playing a positive role in the development of the infrastructure for finance research, teaching and practice throughout Europe.

MATHEMATICAL MODELLING

Combustion Theory and Modelling

Editors-in-Chief: *Moshe Matalon*, *University of Illinois at Urbana-Champaign, USA* and *Mitchell D. Smooke*, *Yale University, USA*

Volume 13, 2009, 6 issues per volume
Print ISSN: 1364-7830, Online ISSN: 1741-3559

Combustion Theory and Modelling is devoted to the application of mathematical modelling, numerical simulation and experimental techniques to the study of combustion. Experimental studies that are published in the Journal should be closely related to theoretical issues, by highlighting fundamental theoretical questions or by providing a sound basis for comparison with theory. Articles can cover a wide range of topics, such as: premixed laminar flames, laminar diffusion flames, turbulent combustion, fires, chemical kinetics, pollutant formation, microgravity, materials synthesis, vapour deposition, catalysis, droplet and spray combustion, detonation dynamics, thermal explosions, ignition, energetic materials and propellants, burners and engine combustion. A wide range of mathematical methods may also be used, including large scale numerical simulation, hybrid computational schemes, front tracking, adaptive mesh refinement, optimized parallel computation, asymptotic methods and singular perturbation techniques, bifurcation theory, optimization methods, dynamical systems theory, cellular automata and discrete methods and probabilistic and statistical methods.

Georisk

Assessment and Management of Risk for Engineered Systems and Geohazards

Editor-in-Chief: *Kok-Kwang Phoon*, *National University of Singapore, Singapore*

Volume 3, 2009, 4 issues per year
Print ISSN: 1749-9518, Online ISSN: 1749-9526

Georisk covers many diversified but interlinked areas of active research and practice, such as geohazards (earthquakes, landslides, avalanches, rockfalls, tsunamis, etc.), safety of engineered systems (dams, buildings, offshore structures, lifelines, etc.), environmental risk, seismic risk, reliability-based design and code calibration, geostatistics, decision analyses, structural reliability, maintenance and life cycle performance, risk and vulnerability, hazard mapping, loss assessment (economic, social, environmental, etc.), GIS databases, remote sensing, and many other related disciplines.

Journal of Mathematical Sociology

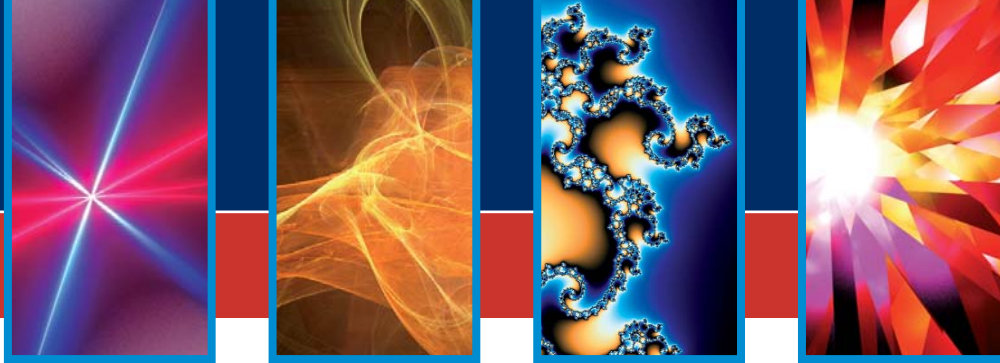
Editor: *Phillip Bonacich*, *University of California at Los Angeles, USA*

Volume 33, 2009, 4 issues per volume
Print ISSN: 0022-250X, Online ISSN: 1545-5874

Journal of Mathematical Sociology publishes articles in all areas of mathematical sociology. The Journal also welcomes papers of mutual interest to social scientists and other social and behavioral scientists, as well as papers by non-social scientists that may encourage fruitful connections between sociology and other disciplines. Reviews of new or developing areas of mathematics and mathematical modelling that may have significant applications in sociology will also be considered.

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MATHEMATICS AND THE ARTS

Journal of Mathematics and Music

Mathematical and Computational Approaches to Music Theory, Analysis, Composition and Performance

Official Journal of the Society of Mathematics and Computation in Music

Editors-in-Chief: Thomas Noll, Escola Superior de Música de Catalunya, Spain and Robert Peck, Louisiana State University, USA

Volume 3, 2009, 3 issues per volume
Print ISSN: 1745-9737, Online ISSN: 1745-9745

Journal of Mathematics and Music aims to advance the use of mathematical modelling and computation in music theory. The Journal focuses on mathematical approaches to musical structures and processes, including mathematical investigations into music-theoretic or compositional issues as well as mathematically motivated analyses of musical works or performances. In consideration of the deep unsolved ontological and epistemological questions concerning knowledge about music, the Journal is open to a broad array of methodologies and topics, particularly those outside of established research fields such as acoustics, sound engineering, auditory perception, linguistics etc. Three issues of the Journal are published per annual volume, with one issue devoted exclusively to a single topic. The online edition of the Journal provides extended material in the form of sound files, applets, or similar electronic media. The Journal also welcomes the submission of book reviews.

Journal of Mathematics and Music is intended to serve the communities of music scholars, composers, mathematicians and computer scientists, particularly those with interdisciplinary interests. The Journal assumes a certain level of proficiency in these fields, appropriate to professionals and graduate students.

Journal of Mathematics and the Arts

Editor: Gary Greenfield, University of Richmond, USA

Volume 3, 2009, 4 Issues per volume
Print ISSN: 1751-3472, Online ISSN: 1751-3480

Journal of Mathematics and the Arts is a peer reviewed journal that focuses on connections between mathematics and the arts. It publishes articles of interest for readers who are engaged in using mathematics in the creation of works of art, who seek to understand art arising from mathematical or scientific endeavors, or who strive to explore the mathematical implications of artistic works. The term 'art' is intended to include, but not be limited to, two and three dimensional visual art, architecture, drama (stage, screen, or television), prose, poetry, and music. The Journal welcomes mathematics and arts contributions where technology or electronic media serve as a primary means of expression or are integral in the analysis or synthesis of artistic works. The following list, while not exhaustive, indicates a range of topics that fall within the scope of the Journal:

- Artists' descriptions providing mathematical context, analysis, or insight about their work
- The exposition of mathematics intended for interdisciplinary mathematics and arts educators and classroom use
- Mathematical techniques and methodologies of interest to practice-based artists
- Critical analysis or insight concerning mathematics and art in historical and cultural settings.

The Journal also features exhibition reviews, book reviews, and correspondence relevant to mathematics and the arts.

MECHANICS

Geophysical & Astrophysical Fluid Dynamics

Editor: Andrew M. Soward, FRS, University of Exeter, UK

Volume 103, 2009, 6 issues per volume
Print ISSN: 0309-1929, Online ISSN: 1029-0419

Geophysical & Astrophysical Fluid Dynamics exists for the publication of original research papers and short communications, occasional survey articles and conference reports on the fluid mechanics of the earth and planets, including oceans, atmospheres and interiors, and the fluid mechanics of the sun, stars and other astrophysical objects.

International Journal for Computational Methods in Engineering Science & Mechanics

Editor-in-Chief: J. N. Reddy, Texas A&M University, USA

Volume 10, 2009, 6 issues per volume
Print ISSN: 1550-2287, Online ISSN: 1550-2295

This journal provides an interdisciplinary forum for papers dealing with mathematical models and computational methods and algorithms for the numerical simulation of natural processes arising in applied science and mechanics.

Special emphasis is placed on both upstream and applied research and on the transfer of technology to industry in the areas of fluid mechanics, heat transfer, solid and structural mechanics in the disciplines of aerospace, chemical, civil, mechanical, electrical engineering, and computational biology, chemistry, and materials science. Also included are papers on novel computational methods to model current and emerging technologies in microelectromechanical systems, electromagnetics, biotechnology, nanotechnology, and information technology.

International Journal of Computational Fluid Dynamics

Editor-in-Chief: Wagdi G. Habashi, McGill University, Canada

Volume 23, 2009, 10 issues per volume
Print ISSN: 1061-8562, Online ISSN: 1029-0257

The aim of the *International Journal of Computational Fluid Dynamics* is the continuous and timely dissemination of new and innovative CFD research and developments. The Journal is a truly interdisciplinary forum for CFD, and publishes refereed papers on the latest advances in numerical methods in fluid dynamics and their applications to the aeronautics, hydrodynamics, environmental, and power and process fields. The Journal has a distinctive and balanced international contribution, with emphasis on papers dealing with efficient methods to produce accurate predictive numerical tools for flow analysis and design, and those promoting the understanding of the physics of fluid motion. Relevant and innovative practical and industrial applications, as well as those of an interdisciplinary nature, are strongly encouraged.



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Journal of Turbulence

Editors-in-Chief: Charles Meneveau, Shiyi Chen and Gregory Eyink, all at Johns Hopkins University, USA

Volume 10, 2009
Online ISSN: 1468-5248

Journal of Turbulence (JoT) is a digital forum for new theoretical, numerical and experimental concepts aimed at understanding, predicting and controlling fluid turbulence, either statistically or deterministically. The multimedia capabilities offered by this electronic journal (including free colour images and video movies), provide a unique opportunity for disseminating detailed research aimed at deciphering the internal structure of turbulence and modelling in its various fundamental, industrial, geophysical or astrophysical forms. **JoT** provides a central repository for communicating studies of fundamental and applied aspects of turbulent flow. Examples include turbulence arising in aero- and hydrodynamics, acoustics, hydraulics, aeroelasticity, transitional flows, combustion, turbo-machinery, heat transfer, two-phase flows, MHD and fusion, environmental flows, internal geophysics, oceanography, meteorology, astrophysics, cryogenic and quantum fluids, and model systems.

OPTIMIZATION

Engineering Optimization

Editor: Andrew Templeman, University of Liverpool, UK

Volume 41, 2009, 12 issues per year
Print ISSN: 0305-215X, Online ISSN: 1029-0273

Engineering Optimization serves the large technical community concerned with quantitative and computational methods of optimization, and their application to engineering planning, design, manufacture and operational processes. The policy of the Journal treats optimization as any formalized process for improvement. Algorithms for numerical optimization are therefore mainstream, but equally welcome are papers which use many of the methods of operations research, decision support, statistical decision theory, systems theory, logical inference, knowledge-based systems, artificial intelligence, information theory and processing, and all methods which can be used in the quantitative modelling of the decision-making process.

Numerical Functional Analysis and Optimization

Editor-in-Chief: M. Z. Nashed, University of Central Florida, USA

Volume 30, 2009, 12 issues per volume
Print ISSN: 0163-0563, Online ISSN: 1532-2467

In original research papers, **Numerical Functional Analysis and Optimization** examines the development and applications of functional analysis and operator theoretic methods in numerical analysis, approximation theory, optimization, control and systems theory, harmonic analysis, and signal processing. Emphasis is placed on interaction and unification of these fields, and the use of abstract methods to provide insight and fundamental contributions to problems and models in the natural, physical, engineering, and decision sciences.

Optimization

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Managing Editor: R. Elster, Universitat Autònoma de Barcelona, Spain

Volume 58, 2009, 8 issues per volume
Print ISSN: 0233-1934, Online ISSN: 1029-4945

Optimization publishes refereed, theoretical and applied papers on the latest developments in fields such as linear, nonlinear, stochastic, parametric, discrete and dynamic programming, control theory and game theory. A special section is devoted to review papers on theory and methods in interesting areas of mathematical programming and optimization techniques. The Journal also publishes conference proceedings, book reviews and announcements

Optimization Methods and Software

Co-Editors: Oleg Burdakov, Linköping University, Sweden and Andreas Griewank, Humboldt University Berlin, Germany

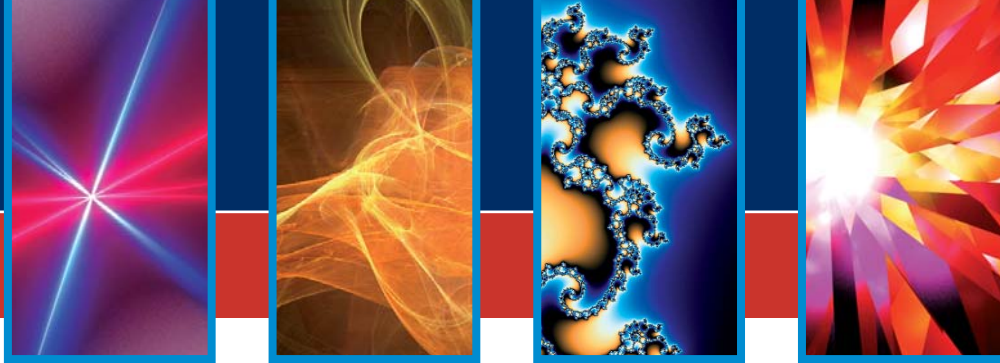
Volume 24, 2009, 6 issues per volume
Print ISSN: 1055-6788, Online ISSN: 1029-4937

Optimization Methods and Software publishes refereed papers on the latest developments in the theory and realization of optimization methods, with particular emphasis on the interface between software development and algorithm design. Topics include:

- Theory, implementation and performance evaluation of algorithms and computer codes for linear, nonlinear, discrete, stochastic optimization and optimal control. This includes in particular conic, semidefinite, mixed integer, network, nonsmooth, multi-objective and global optimization by deterministic or nondeterministic algorithms.
- Algorithms and software for complementarity, variational inequalities and equilibrium problems, and also for solving inverse problems, systems of nonlinear equations and the numerical study of parameter dependent operators.
- Various aspects of efficient and user-friendly implementations: e.g. automatic differentiation, massively parallel optimization, distributed computing, on-line algorithms, error sensitivity and validity analysis, problem scaling, stopping criteria and symbolic numeric interfaces.
- Theoretical studies with a clear potential for applicability, as well as successful applications of optimization methods and software in specific areas such as engineering, machine learning, data mining, economics, finance, biology, or medicine.

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STATISTICS AND PROBABILITY

Structural Equation Modeling A Multidisciplinary Journal

Editor: George A. Marcoulides, University of California, Riverside, USA

Volume 16, 2009, 4 issues per year
Print ISSN: 1070-5511, Online ISSN: 1532-8007

Structural Equation Modeling publishes manuscripts from all academic disciplines with an interest in structural equation modeling. These include, but are not limited to, psychology, sociology, educational research, political science, economics, management, and business/marketing.

The journal contains theoretical and applied articles, a teachers' corner, book and software reviews, and advertising. Theoretical articles address new developments and examine current practices. Applied articles deal with both exploratory and confirmatory models. The teachers' corner provides instructional modules on aspects of structural equation modeling.

Communications in Statistics – Simulation and Computation®

Editor-in-Chief: N. Balakrishnan, McMaster University, Canada

Volume 38, 2009, 10 issues per volume
Print ISSN: 0361-0918, Online ISSN: 1532-4141

The **Simulation and Computation** series publishes papers that make theoretical and methodological advances relating to computational aspects of Probability and Statistics. In addition, special issues dedicated to a specific topic of current interest will also be published in this series periodically, providing an exhaustive and up-to-date review of that topic to the readership.

Communications in Statistics – Theory and Methods®

Editor-in-Chief: N. Balakrishnan, McMaster University, Canada

Volume 38, 2009, 20 issues per volume
Print ISSN: 0361-0926, Online ISSN: 1532-415X

The **Theory and Methods** series publishes papers that make theoretical and methodological advances in Probability and Statistics. New applications of statistical and probabilistic methods will also be considered for publication. Special issues dedicated to a specific topic of current interest are also published periodically, providing an up-to-date review of that topic to the readership.

Journal of Applied Statistics

Editor: Robert G. Aykroyd, University of Leeds, UK

Volume 36, 2009, 12 issues per year
Print ISSN 0266-4763, Online ISSN 1360-0532

Journal of Applied Statistics provides a forum for communication between both applied statisticians and users of applied statistical techniques across a wide range of disciplines. These areas include business, computing, economics, ecology, education, management, medicine, operational research and sociology, but papers from other areas are also considered. The editorial policy is to publish rigorous but clear and accessible papers on applied techniques. Purely theoretical papers are avoided but those on theoretical developments which clearly demonstrate significant applied potential are welcomed.

Journal of Biopharmaceutical Statistics

Editor-in-Chief: Shien-Chung Chow, Duke University, USA

Volume 19, 2009, 6 issues per volume
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Journal of Nonparametric Statistics

Executive Editor: Suojin Wang, Texas A&M University, USA

Editors: Michael Akritas, Pennsylvania State University, USA,
Dimitris Politis, University of California at San Diego, USA and Javier Rojo, Rice University, USA

Volume 21, 2009, 8 issues per volume
Print ISSN: 1048-5252, Online ISSN: 1029-0311

Journal of Nonparametric Statistics provides a medium for the publication of research and survey work in nonparametric statistics and related areas. The scope includes, but is not limited to the following topics:

- Nonparametric modeling
 - Nonparametric function estimation
 - Rank and other robust and distribution-free procedures
 - Resampling methods
 - Lack-of-fit testing
 - Multivariate analysis
 - Inference with high-dimensional data
 - Dimension reduction and variable selection
 - Methods for errors in variables, missing, censored, and other incomplete data structures
 - Inference of stochastic processes
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 - Nonparametric Bayes methods and decision procedures
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 - Statistical methods for imaging and tomography
 - Statistical inverse problems
 - Financial statistics and econometrics
 - Bioinformatics and comparative genomics
 - Statistical algorithms and machine learning.
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Journal of Statistical Computation and Simulation

Editor: Richard Krutchkoff, Virginia Polytechnic Institute and State University, USA

Volume 79, 2009, 12 issues per volume
Print ISSN: 0094-9655, Online ISSN: 1563-5163

Journal of Statistical Computation and Simulation publishes significant and original work in areas of statistics which are related to or dependent upon the computer.

Fields covered include computer algorithms related to probability or statistics, studies in statistical inference by means of simulation techniques, and implementation of interactive statistical systems.



Mathematical Population Studies

An International Journal of Mathematical Demography

Editor-in-Chief: Noel Bonneuil, INED, France

Volume: 16, 2009, 4 issues per volume
Print ISSN: 0889-8480, Online ISSN: 1547-724X

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Statistics: A Journal of Theoretical and Applied Statistics

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Editor: Olaf Bunke, Humboldt-Universität zu Berlin, Germany

Volume 43, 2009, 6 issues per volume
Print ISSN: 0233-1888, Online ISSN: 1029-4910

Statistics publishes theoretical and applied papers related to the different fields of statistics such as regression and variance analysis, design of experiments, foundations of statistical inference, statistical decision theory, testing hypotheses, parameter estimation, nonparametric methods, sequential procedures, time series and statistical problems for stochastic processes, and statistical data analysis.

It is expected that papers give interesting and novel contributions to statistical theory and its applications at a good mathematical level. The results should be presented in form of theorems together with their mathematical proofs, which should not be merely routine calculations. Additionally, the discussion of results and their value for the theory or for applications could be a valuable addition, as well as numerical results on the efficiency or examples for the application of the theoretical results.

Stochastics: An International Journal of Probability and Stochastic Processes

Editor: S. D. Jacka, University of Warwick, UK

Volume 81, 2009, 6 issues per volume
Print ISSN: 1744-2508, Online ISSN: 1744-2516

Stochastics: An International Journal of Probability and Stochastic Processes (formerly *Stochastics and Stochastics Reports*) is concerned with stochastic processes and their applications in the modelling, analysis and optimization of stochastic systems, i.e. processes characterized both by temporal or spatial evolution and by the presence of random effects. Articles are published dealing with all aspects of stochastic systems analysis characterization problems, stochastic modelling and identification, optimization filtering and control with related questions in the theory of stochastic processes. Also solicited are articles dealing with significant applications of stochastic process theory to problems in engineering systems, the physical and life sciences, economics and other areas.

Stochastic Analysis and Applications

Editors: G. S. Ladde, University of South Florida, USA and V. Lakshmikantham, Florida Institute of Technology, USA

Volume 27, 2009, 6 issues per volume
Print ISSN: 0736-2994, Online ISSN: 1532-9356

Stochastic Analysis and Applications presents the latest innovations in the field of stochastic theory and its practical applications, as well as the full ranges of related approaches to analyzing systems under random excitation. In addition, it offers the broad, detailed coverage necessary for the interdisciplinary fertilization of new concepts and ideas, providing the scientific community with a unique and highly useful service.

Stochastic Models

Editor-in-Chief: Peter Taylor, University of Melbourne, Australia

Volume 25, 2009, 4 issues per volume
Print ISSN: 1532-6349, Online ISSN: 1532-4214

This established journal presents contributions on mathematical methodology, from structural, analytical, and algorithmic to experimental approaches. It offers an interdisciplinary presentation on the uses of probability theory and discusses practical applications of stochastic models to diverse areas such as biology, computer science / telecommunications modeling, inventories and dams, reliability, storage, queuing theory, and operations research.

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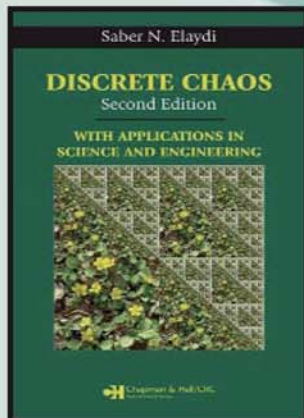
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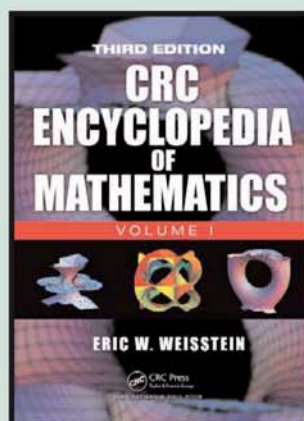
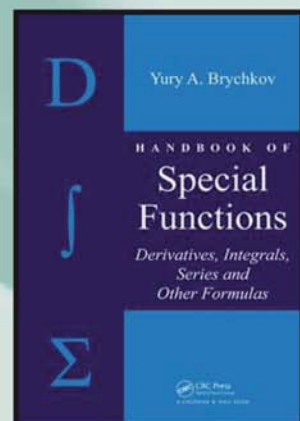


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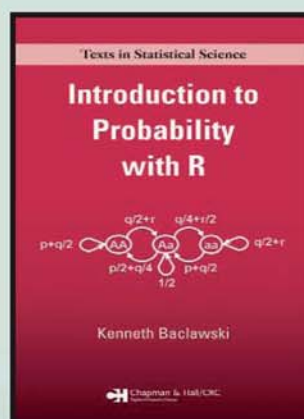
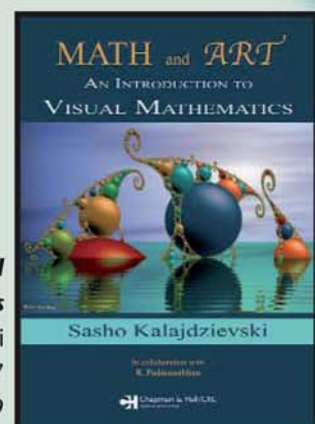


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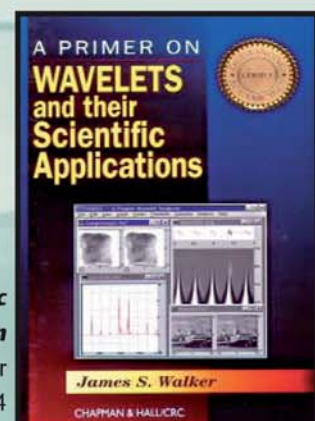


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