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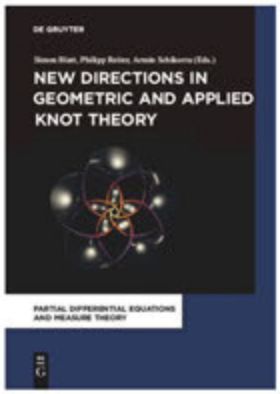
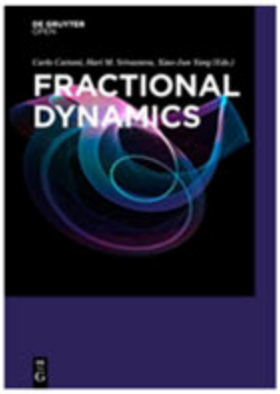
Mathematics - July 2020

The Abdus Salam International Centre for Theoretical Physics

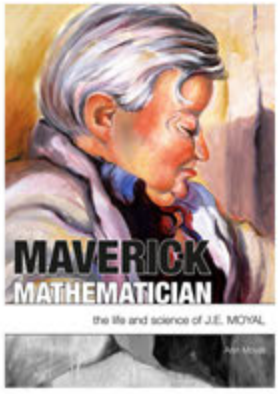


New Directions in Geometric and Applied Knot Theory
Recent results in both theoretical and applied knot theory. A wide range of different sub-disciplines, such as the young field of geometric knot theory, combinatorial knot theory, as well as applications in microbiology and theoretical physics.

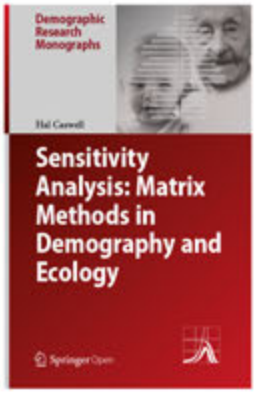


Fractional Dynamics
Focused on recent developments in the theory of fractional calculus, with attention to the applicability of this popular research field in various branches of pure and applied mathematics.
Results in mathematical physics, theoretical and applied physics as quantum mechanics, signal analysis, and in research fields where nonlinear dynamics occurs.

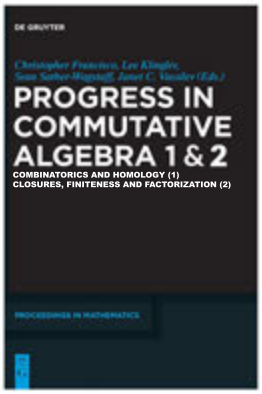
Riemann-Roch Spaces and Computation
An educational perspective of Riemann-Roch spaces and the computation of algebraic structures connected to the Riemann-Roch theorem, accompanied by a variety of examples with codes of algorithms, covering the majority of the cases.



Maverick Mathematician: The Life and Science of J.E. Moyal
One of Australia's most remarkable thinkers. From outside of academia Moyal entered into communication with the 'high priest' of British theoretical physics, P.A.M. Dirac, challenging him with the idea of a statistical basis of quantum mechanics. Their correspondence forms the core of this book.

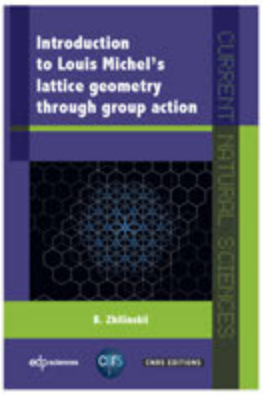


Sensitivity Analysis: Matrix Methods in Demography and Ecology
With this book Hal Caswell shows how to use sensitivity analysis in demography. Methods are presented for linear and nonlinear, deterministic and stochastic, and time-invariant and time-varying cases. The calculations easily and accurately implemented in matrix-oriented languages such as Matlab or R will help create models to predict the effect of future changes.



Progress in Commutative Algebra Volumes 1 & 2
This two-volume set originates from 3 commutative algebra sessions at the 2009 Fall SE AMS Meeting, at Florida Atlantic University. It presents current trends in 2 of the most active areas of commutative algebra: non-Noetherian rings and Noetherian rings.

Link Volume 1 **Link Volume 2**



Introduction to Louis Michel's Lattice Geometry Through Group Action
The central subject of the book is group action analysis, developed and applied mainly by Louis Michel to the study of N-dimensional periodic lattices. The authors, starting from general Delone sets, turn to different symmetry and topological classifications including explicit construction of orbifolds for two- and three-dimensional point and space groups.

ICM Proceedings 1893-2018
The complete 28 International Congress of Mathematicians Proceedings in one place, including the two precursor meetings of 1893. A precious source of information offered by the International Mathematical Union to its community.

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Numdam - The French Digital Mathematics Library, made available the eVersion of all Astérisque volumes from 1973 to 2009.