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Nota di contenuto	Applications of Quasiconvexity (S. Abramovich) Taylor's Formula and Integral Inequalities for Conformable Fractional Derivatives (D.R. Anderson) Sobolev-type inequalities on manifolds in the presence of symmetries and applications (A. Cotsiolis, N. Labropoulos) Generalized Minkowski functionals (S. Czerwik, K. Krol) A Network Design Model Under Uncertainty (E. D'Amato, E. Daniele, L. Mallozzi) Optimal rational approximation number sets: Application to nonlinear dynamics in particle accelerators (N.J. Daras, M.N. Vrahatis) Supermeasures Associated to Some Classical Inequalities (S.S. Dragomir) Remarks on Solutions of a Functional Equation Arising

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from an Asymmetric Switch (E. El-hady, J. Brzdek, W. Forg-Rob, H. Nassar) -- The general sampling theory by using reproducing kernels (H. Fujiwara, S. Saitoh) -- Kronecker's Products and Kronecker's Sums of Operators (M. Gil') -- Effective Conductivity and Critical Properties of a Hexagonal Array of Superconducting Cylinders (S. Gluzman, V. Mityushev, W. Nawalaniec, G. Starushenko) -- A Survey on Durrmeyer Type Operators (V. Gupta, T.M. Rassias, J. Sinha) -- On the Imaginary Part of the Non-Trivial Zeros of the Riemann Zeta Function (M. Hassani) -- The Ubiquitous Lambert Function and its Classes in Science and Engineering (C. Katsimpiri, P.E. Nastou, P.M. Pardalos, Y.C. Samatiou) -- A Computational Approach to the Unwrappings of the Developable Surfaces (D. Kodokostas) -- Multiple Weighted Orlicz Spaces and Applications (J. Kuang) -- Hyers-Ulam-Rassias Stability on Amenable Groups (A. Mohamed, E. Elhoucien, S. Khalil) -- Closed Form Solution of a LAN Gateway Queueing Model (H. Nassar, E. El-hady) -- Some Quantam Hermite-Hadamard Type Inequalities for General Convex Functions (M.A. Noor, T.M. Rassias) -- General Harmonic Convex Functions and Integral Inequalities (M.A. Noor, K.I. Noor, M.U. Awan, S. Iftikhar) -- Extension Operator Method for the Exact Solution of Integro-Differential Equations (I.N. Parasidis, E. Providas) -- Fixed Point Structures, Invariant Operators, Invariant Partitions, and Applications to Carathéodory Integral Equations (A. Petruel, I.A. Rus and M.-A. erban) -- On the Best Hyers-Ulam Stability Constants for Some Equations and Operators (D. Popa, G. Pugna, I. Raa) -- More on the Metric Projection onto a Closed Convex Set in a Hilbert Space (B. Ricceri) -- Carathéodory Functions in Partial Differential Equations (M. Schechter) -- Basic Tools, Increasing Functions, and Closure Operations in Generalized Ordered Sets (A. Száz) -- Addition-like Variational Principles in Asymmetric Spaces (M. Turinici) -- Compositional Yang-Hilbert-Type Integral Inequalities and Operators (B. Yang) -- Opial Inequalities Involving Higher Order Partial Derivatives (C.-J. Zhao, W.-S. Cheung). The contributions in this volume aim to deepen the researcher's Sommario/riassunto understanding of some of the current research problems and theories in modern topics such as calculus of variations, optimization theory, complex analysis, real analysis, differential equations, and geometry, Applications to these areas of mathematics are presented within the broad spectrum of research in Engineering Science with particular emphasis on equilibrium problems, complexity in numerical optimization, dynamical systems, non-smooth optimization, complex network analysis, statistical models and data mining, and energy systems. Additional emphasis is given to interdisciplinary research, although subjects are treated in a unified and self-contained manner. The presentation of methods, theory and applications makes this tribute an invaluable reference for teachers, researchers, and other professionals interested in pure and applied research, philosophy of mathematics, and mathematics education. Some review papers published in this volume will be particularly useful for a broader audience of readers as well as for graduate students who search for the latest information. Constantin Carathéodory's wide-ranging influence in the international mathematical community was seen during the first Fields Medals awards at the International Congress of Mathematicians, Oslo, 1936. Two medals were awarded, one to Lars V. Ahlfors and one to Jesse Douglass. It was Carathéodory who presented both their works during the opening of the International Congress. This volume contains significant papers in Science and Engineering dedicated to the memory of Constantin Carathéodory and the spirit of his mathematical influence..