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Titolo	Complex Analysis and Dynamical Systems : New Trends and Open Problems / / edited by Mark Agranovsky, Anatoly Golberg, Fiana Jacobzon, David Shoikhet, Lawrence Zalcman
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Descrizione fisica	1 online resource (373 pages) : color illustrations
Collana	Trends in Mathematics, , 2297-0215
Disciplina	515.9
Soggetti	Functions of complex variables Differential equations Integral transforms Calculus, Operational Functional analysis Operator theory Functions of a Complex Variable Several Complex Variables and Analytic Spaces Ordinary Differential Equations Integral Transforms, Operational Calculus Functional Analysis Operator Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	On polynomially integrable domains in Euclidean spaces -- A survey on the maximal number of solutions of equations related to gravitational lensing -- Boundary interpolation by finite Blaschke products -- Support points and the Bieberbach conjecture in higher dimension -- Some unsolved problems about condenser capacities on the plane -- Filtration of semi-complete vector fields revisited -- Polynomial lemniscates and their fingerprints: from geometry to topology -- Regularity of mappings with integrally restricted moduli -- Extremal problems for mappings with g-parametric representation on the unit

polydisc in C^n -- Evolution of states of a continuum jump model with attraction -- Problems on weighted and unweighted composition operators -- Harmonic measures of slit sides, conformal welding and extremal problems -- Comparison moduli spaces of Riemann surfaces -- Asymptotic ratio of harmonic measures of sides of a boundary slit -- Coupling of Gaussian free field with general slit SLE -- A Marx-Strohhacker type result for close-to-convex functions.

Sommario/riassunto

This book focuses on developments in complex dynamical systems and geometric function theory over the past decade, showing strong links with other areas of mathematics and the natural sciences. Traditional methods and approaches surface in physics and in the life and engineering sciences with increasing frequency – the SchrammLoewner evolution, Laplacian growth, and quadratic differentials are just a few typical examples. This book provides a representative overview of these processes and collects open problems in the various areas, while at the same time showing where and how each particular topic evolves. This volume is dedicated to the memory of Alexander Vasiliev.