1. **Record Nr.** UNINA9910770244003321

Titolo	Function Spaces, Theory and Applications / / edited by Ilia Binder, Damir Kinzebulatov, Javad Mashreghi
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2023
ISBN	9783031392702
	3031392701
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (x, 485 pages) : illustrations
Collana	Fields Institute Communications, , 2194-1564 ; ; 87
Disciplina	515.9
Soggetti	Functions of complex variables
	Functional analysis
	Operator theory
	Functions of a Complex Variable
	Functional Analysis
	Operator Theory
	Several Complex Variables and Analytic Spaces
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Absolute continuity in higher dimensions -- An indefinite analog of Sarason's generalized interpolation theorem -- An Operator theoretical approach of some inverse problems -- Applications of the automatic additivity of positive homogenous order isomorphisms between positive definite cones in C*-algebras -- Direct and Inverse Spectral Theorems for a Class of Canonical Systems with two Singular Endpoints -- Nevanlinna domains and uniform approximation by polyanalytic polynomial modules -- On meromorphic inner functions in the upper half-plane -- On the norm of the Hilbert matrix -- Radial limits of functions holomorphic in C or the polydisc -- Recent developments in the interplay between function theory and operator theory for block Toeplitz, Hankel, and model operators -- Sarason's Ha-plitz product problem -- Sub-Hardy Hilbert spaces in the non-commutative unit row-ball -- The relationship of the Gaussian curvature with the curvature of a Cowen-Douglas operator -- Weighted Polynomial Approximation on the Cubes of the non-zero Integers --

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Sommario/riassunto	The focus program on Analytic Function Spaces and their Applications took place at Fields Institute from July 1st to December 31st, 2021. Hilbert spaces of analytic functions form one of the pillars of complex analysis. These spaces have a rich structure and for more than a century have been studied by many prominent mathematicians. They also have several essential applications in other fields of mathematics and engineering, e.g., robust control engineering, signal and image processing, and theory of communication. The most important Hilbert space of analytic functions is the Hardy class H2. However, its close cousins, e.g. the Bergman space A2, the Dirichlet space D, the model subspaces Kt, and the de Branges-Rovnyak spaces H(b), have also been the center of attention in the past two decades. Studying the Hilbert spaces of analytic functions and the operators acting on them, as well as their applications in other parts of mathematics or engineering were the main subjects of this program. During the program, the world leading experts on function spaces gathered and discussed the new achievements and future venues of research on analytic function spaces, their operators, and their applications in other domains. With more than 250 hours of lectures by prominent mathematicians, a wide variety of topics were covered. More explicitly, there were mini-courses and workshops on Hardy Spaces, Dirichlet Spaces, Bergman Spaces, Model Spaces, Interpolation and Sampling, Riesz Bases, Frames and Signal Processing, Bounded Mean Oscillation, de Branges-Rovnyak Spaces, Operators on Function Spaces, Truncated Toeplitz Operators, Blaschke Products and Inner Functions, Discrete and Continuous Semigroups of Composition Operators, The Corona Problem, Non-commutative Function Theory, Drury-Arveson Space, and Convergence of Scattering Data and Non-linear Fourier Transform. At the end of each week, there was a high profile colloquium talk on the current topic. The program also contained two semester-long advanced courses on Schramm Loewner Evolution and Lattice Models and Reproducing Kernel Hilbert Space of Analytic Functions. The current volume features a more detailed version of some of the talks presented during the program.