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Titolo	Large truncated Toeplitz matrices, Toeplitz operators, and related topics : the Albrecht Böttcher anniversary volume // edited by Dario A. Bini, Torsten Ehrhardt, Alexei Yu. Karlovich, Ilya Spitkovsky
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Collana	Operator Theory: Advances and Applications, , 0255-0156 ; ; 259
Disciplina	512.5
Soggetti	Matrix theory Algebra Operator theory Linear and Multilinear Algebras, Matrix Theory Operator Theory
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	"The Albrecht Bottcher anniversary volume"--Title page.
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Publications of Albrecht Böttcher.- Albrecht Böttcher - 20 Years of Friendship and Joint Work.- Salutory with regards from the mathematics students of Chemnitz.- Essay on Albrecht Böttcher. - Meeting Albrecht the Strong.- The beginning (the way I remember it) -- Personal Address on the Occasion of Albrecht Böttcher's 60th Birthday -- Asymptotics of eigenvalues for pentadiagonal symmetric Toeplitz matrices -- Echelon type canonical forms in upper triangular matrix algebras -- Asymptotic formulas for determinants of a special class of Toeplitz + Hankel matrices -- Generalization of the Brauer Theorem to Matrix Polynomials and Matrix Laurent Series -- Eigenvalues of Hermitian Toeplitz matrices generated by simple-loop symbols with relaxed smoothness -- On the asymptotic behavior of a log gas in the bulk scaling limit in the presence of a varying external potential II -- Useful bounds on the extreme eigenvalues and vectors of matrices for Harper's operators -- Fast inversion of centrosymmetric Toeplitz-plus-Hankel Bezoutians -- On Matrix-Valued Stieltjes Functions with an Emphasis on Particular Subclasses -- The theory of Generalized Locally Toeplitz sequences: a review, an extension, and a

few representative applications -- The Bézout equation on the right half plane in a Wiener space setting -- On a collocation-quadrature method for the singular integral equation of the notched half plane problem -- The Haseman Boundary Value Problem with Slowly Oscillating Coefficients and Shifts -- On the Norm of Linear Combinations of Projections and Some Characterizations of Hilbert Spaces -- Pseudodifferential Operators in Weighted Hölder-Zygmund Spaces of Variable Smoothness -- Commutator estimates comprising the Frobenius norm - Looking back and forth.- Numerical Ranges of 4-by-4 Nilpotent Matrices: Flat Portions on the Boundary -- Traces on operator ideals and related linear forms on sequence ideals (part IV). - Error estimates for the ESPRIT algorithm -- The universal algebra generated by a power partial isometry -- Norms, condition numbers and pseudospectra of convolution type operators on intervals.- Paired operators in asymmetric space setting -- Natural Boundary for a Sum Involving Toeplitz Determinants.- A Riemann-Hilbert Approach to Filter Design.

Sommario/riassunto

This book presents a collection of expository and research papers on various topics in matrix and operator theory, contributed by several experts on the occasion of Albrecht Böttcher's 60th birthday. Albrecht Böttcher himself has made substantial contributions to the subject in the past. The book also includes a biographical essay, a complete bibliography of Albrecht Böttcher's work and brief informal notes on personal encounters with him. The book is of interest to graduate and advanced undergraduate students majoring in mathematics, researchers in matrix and operator theory as well as engineers and applied mathematicians.
