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Nota di contenuto	Holomorphic operator valued functions generated by passive selfadjoint systems -- Free bianalytic maps between spectrahedra and spectraballs in a generic setting -- Szego and Widom Theorems for the Neil Algebra -- Block triangular matrices in Banach space: minimal completions and factorability -- Multipliers of Drury-Arveson Space: a survey -- Contractively embedded invariant sub-spaces -- A Toeplitz-like operator with rational symbol having poles on the unit circle II: the spectrum -- The twofold Ellis-Gohberg inverse problem in an abstract setting and applications -- Abstract Interpolation Problem and Some Applications. II: Coeffcient Matrices -- Analytic interpolation into the tetrablock and a -synthesis problem -- A Gleason solution model for row contractions -- On the augmented Biot-JKD equations with Pole-Residue representation of the dynamic tortuosity -- The flow equations of resistive electrical networks -- Control and the Analysis of Cancer Growth Models.
Sommario/riassunto	This volume is devoted to Joseph A. (Joe) Ball’s contributions to operator theory and its applications and in celebration of his seventieth birthday. Joe Ball’s career spans over four and a half decades, starting with his work on model theory and related topics for non-contractions and operators on multiply connected domains. Later on, more applied operator theory themes appeared in his work, involving factorization

and interpolation for operator-valued functions, with extensive applications in system and control theory. He has worked on nonlinear control, time-varying systems and, more recently, on multidimensional systems and noncommutative H-theory on the unit ball and polydisk, and more general domains, and these are only the main themes in his vast oeuvre. Fourteen research papers constitute the core of this volume, written by mathematicians who have collaborated with Joe or have been influenced by his vast mathematical work. A curriculum vitae, a publications list and a list of Joe Ball's PhD students are included in this volume, as well as personal reminiscences by colleagues and friends. Contributions by Yu. M. Arlinskii, S. Hassi, M. Augat, J. W. Helton, I. Klep, S. McCullough, S. Balasubramanian, U. Wijesooriya, N. Cohen, Q. Fang, S. Gorai, J. Sarkar, G. J. Groenewald, S. ter Horst, J. Jaftha, A. C. M. Ran, M.A. Kaashoek, F. van Schagen, A. Kheifets, Z. A. Lykova, N. J. Young, A. E. Ajibo, R. T. W. Martin, A. Ramanantoanina, M.-J. Y. Ou, H. J. Woerdeman, A. van der Schaft, A. Tannenbaum, T. T. Georgiou, J. O. Deasy and L. Norton.