Record Nr. UNINA9910919811603321 Autore Vasilevski Nikolai Titolo Polyanalytic Type Function Spaces / / by Nikolai Vasilevski Cham:,: Springer Nature Switzerland:,: Imprint: Birkhäuser,, 2024 Pubbl/distr/stampa **ISBN** 9783031761812 3031761812 Edizione [1st ed. 2024.] Descrizione fisica 1 online resource (199 pages) Operator Theory: Advances and Applications, , 2296-4878 ; ; 305 Collana Disciplina 516.3 Soggetti Functions of complex variables Operator theory Several Complex Variables and Analytic Spaces **Operator Theory** Functions of a Complex Variable Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Foreword -- Preface -- Introduction -- I Spaces of polyanalytic type in Nota di contenuto one complex variable -- 1 Extended Fock-space construction approach -- 2 Complex plane C case -- 3 Unit disk D case -- 4 Upper half-plane case -- 5 Basis oriented approach -- 6 Approach based on pure isometries -- II Spaces of polyanalytic type in several complex variables -- 7 Multi-operator extended Fock-space construction -- 8 The Cn case -- 9 The unit ball Bn case -- 10 Hilbert spaces with generalized Gaussian measure on C2 -- 11 The Siegel domain case -- Bibliography -- Index. Sommario/riassunto This book is about function spaces aspects of polyanalytic functions, a topic that has gained a lot of attention in the past decades. This book fills a gap in literature and is written by a leading researcher in the field. Rather than studying polyanalytic functions from a complex analysis point of view, it considers the (Lie)-algebraic part of the theory. Several generalizations are offered. The presented theory has many applications, including to quantum physics. An extensive introduction to the topic is provided, making the book accessible to

specialists and newcomers alike.