Record Nr. UNINA9910392729503321 Autore Cvetkovilli Dragana S Titolo Algebraic Properties of Generalized Inverses / / by Dragana S. Cvetkovilli, Yimin Wei Pubbl/distr/stampa Singapore:,: Springer Singapore:,: Imprint: Springer,, 2017 **ISBN** 981-10-6349-4 Edizione [1st ed. 2017.] Descrizione fisica 1 online resource (VIII, 194 p.) Collana Developments in Mathematics, , 1389-2177; ; 52 Disciplina 371.805 Soggetti Matrix theory Algebra Linear and Multilinear Algebras, Matrix Theory Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references at the end of each chapters and Nota di contenuto Denitions and motivations -- Reverse order law -- Completions of operator matrices and generalized inverses -- Generalized inverses and idempotents -- Drazin inverse of a 2 x 2 block matrix -- Additive Results for the Drazin Inverse -- Index. This book addresses selected topics in the theory of generalized Sommario/riassunto inverses. Following a discussion of the "reverse order law" problem and certain problems involving completions of operator matrices, it subsequently presents a specific approach to solving the problem of the reverse order law for {1} -generalized inverses. Particular emphasis is placed on the existence of Drazin invertible completions of an upper triangular operator matrix; on the invertibility and different types of generalized invertibility of a linear combination of operators on Hilbert spaces and Banach algebra elements; on the problem of finding representations of the Drazin inverse of a 2x2 block matrix; and on selected additive results and algebraic properties for the Drazin inverse. In addition to the clarity of its content, the book discusses the relevant open problems for each topic discussed. Comments on the latest references on generalized inverses are also included.

Accordingly, the book will be useful for graduate students, PhD

in these topics.

students and researchers, but also for a broader readership interested