Record Nr. UNINA9910456118803321 Autore Mitra Sujit Kumar Titolo Matrix partial orders, shorted operators and applications [[electronic resource] /] / Sujit Kumar Mitra, P. Bhimasankaram, Saroj B. Malik Singapore; ; Hackensack, N.J., : World Scientific, c2010 Pubbl/distr/stampa **ISBN** 1-282-75761-X 9786612757617 981-283-845-7 Descrizione fisica 1 online resource (464 p.) Collana Series in algebra;; v. 10 **BhimasankaramP** Altri autori (Persone) MalikSaroj B Disciplina 515.7246 Soggetti Matrices Linear operators Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Preface; Acknowledgements; Glossary of Symbols and Abbreviations; Contents: 1. Introduction: 2. Matrix Decompositions and Generalized Inverses; 3. The Minus Order; 4. The Sharp Order; 5. The Star Order; 6. One-Sided Orders; 7. Unified Theory of Matrix Partial Orders through Generalized Inverses; 8. The L owner Order; 9. Parallel Sums; 10. Schur Complements and Shorted Operators; 11. Shorted Operators - Other Approaches; 12. Lattice Properties of Partial Orders; 13. Partial Orders of Modified Matrices; 14. Equivalence Relations on Generalized and Outer Inverses: 15. Applications 16. Some Open Problems Appendix A Relations and Partial Orders; Bibliography: Index The present monograph on matrix partial orders, appearing for the first Sommario/riassunto time, is a unique presentation of many partial orders on matrices that have fascinated mathematicians for their beauty and applied scientists

for their wide-ranging application potential. Except for the Lowner order, the partial orders considered are relatively new and came into being in the late 1970's. After a detailed introduction to generalized inverses and decompositions, the three basic partial orders - namely,

the minus, the sharp and the star - and the corresponding one-sided orders are presented using various...