1. Record Nr. UNINA9910814519603321 Autore **Bosch Carlos Titolo** Functional calculi // Carlos Bosch, Instituto Tecnologico Autonomo de Mexico, Mexico, Charles Swartz, New Mexico State University, USA Pubbl/distr/stampa Singapore, : World Scientific, c2013 New Jersey:,: World Scientific,, [2013] 2013 **ISBN** 981-4415-98-7 Descrizione fisica 1 online resource (x, 215 pages): illustrations Collana Gale eBooks Disciplina 515 Soggetti Functional analysis Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references and index. Nota di bibliografia Preface; Contents; 1. Vector and Operator Valued Measures; 1.1 Vector Nota di contenuto Measures: 1.2 Operator Valued Measures: 1.3 Extensions of Measures: 1.4 Regularity and Countable Additivity; 1.5 Countable Additivity on Products; 2. Functions of a Self Adjoint Operator; 3. Functions of Several Commuting Self Adjoint Operators; 4. The Spectral Theorem for Normal Operators; 5. Integrating Vector Valued Functions; 5.1 Vector Valued Measurable Functions; 5.2 Integrating Vector Valued Functions; 6. An Abstract Functional Calculus; 7. The Riesz Operational Calculus; 7.1 Power Series; 7.2 Laurent Series 7.3 Runge's Theorem7.4 Several Complex Variables; 7.5 Riesz Operational Calculus; 7.6 Abstract Functional Calculus; 7.7 Spectral Sets; 7.8 Isolated Points; 7.9 Wiener's Theorem; 8. Weyl's Functional Calculus; Appendix A The Orlicz-Pettis Theorem; Appendix B The Spectrum of an Operator; Appendix C Self Adjoint, Normal and Unitary Operators: Appendix D Sesquilinear Functionals: Appendix E Tempered Distributions and the Fourier Transform; E.1 Distributions; E.2 The Spaces S(Rn) and S'(Rn); E.3 Fourier Transform of Functions; E.4 Fourier Transform of a Tempered Distribution E.5 Paley-Wiener TheoremsBibliography; Index

A functional calculus is a construction which associates with an

operator or a family of operators a homomorphism from a function

Sommario/riassunto

space into a subspace of continuous linear operators, i.e. a method for defining "functions of an operator". Perhaps the most familiar example is based on the spectral theorem for bounded self-adjoint operators on a complex Hilbert space. This book contains an exposition of several such functional calculi. In particular, there is an exposition based on the spectral theorem for bounded, self-adjoint operators, an extension to the case of several commuting self-adjoint