Record Nr. UNINA9910672447803321 Autore Chakrabarty Siddhartha Pratim Titolo Mathematical Portfolio Theory and Analysis / / Siddhartha Pratim Chakrabarty, Ankur Kanaujiya Singapore:,:Birkhauser,,[2023] Pubbl/distr/stampa ©2023 **ISBN** 981-19-8544-8 Edizione [1st ed. 2023.] Descrizione fisica 1 online resource (158 pages) Collana Compact Textbooks in Mathematics Series Disciplina 519.538 Soggetti Analysis of variance Portfolio management - Mathematical models Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. Chapter 1. Mechanisms of Financial Markets -- Chapter 2. Nota di contenuto Fundamentals of Probability Theory -- Chapter 3. Asset Pricing Models -- Chapter 4. Mean-Variance Portfolio Theory -- Chapter 5. Utility Theory -- Chapter 6. Non-Mean-Variance Portfolio Theory -- Chapter 7. Optimal Portfolio Strategies -- Chapter 8. Bond Portfolio Optimization -- Chapter 9. Risk Management of Portfolios. Sommario/riassunto Designed as a self-contained text, this book covers a wide spectrum of topics on portfolio theory. It covers both the classical-mean-variance portfolio theory as well as non-mean-variance portfolio theory. The book covers topics such as optimal portfolio strategies, bond portfolio

Designed as a self-contained text, this book covers a wide spectrum of topics on portfolio theory. It covers both the classical-mean-variance portfolio theory as well as non-mean-variance portfolio theory. The book covers topics such as optimal portfolio strategies, bond portfolio optimization and risk management of portfolios. In order to ensure that the book is self-contained and not dependent on any pre-requisites, the book includes three chapters on basics of financial markets, probability theory and asset pricing models, which have resulted in a holistic narrative of the topic. Retaining the spirit of the classical works of stalwarts like Markowitz, Black, Sharpe, etc., this book includes various other aspects of portfolio theory, such as discrete and continuous time optimal portfolios, bond portfolios and risk management. The increase in volume and diversity of banking activities has resulted in a concurrent enhanced importance of portfolio theory, both in terms of management perspective (including risk management) and the resulting mathematical sophistication required. Most books on

portfolio theory are written either from the management perspective, or are aimed at advanced graduate students and academicians. This book bridges the gap between these two levels of learning. With many useful solved examples and exercises with solutions as well as a rigorous mathematical approach of portfolio theory, the book is useful to undergraduate students of mathematical finance, business and financial management.