1. Record Nr. UNINA9910814028003321

Autore	Cerny Ales <1971->
Titolo	Mathematical techniques in finance : tools for incomplete markets / / Ales Cerny
Pubbl/distr/stampa	Princeton [N.J.], : Princeton University Press, 2009
ISBN	1-282-60814-2 9786612608148 1-4008-3148-2 0-691-14121-5
Edizione	[2nd ed.]
Descrizione fisica	1 online resource (412 p.)
Disciplina	332.015195
Soggetti	Finance - Mathematical models Risk management - Mathematical models Derivative securities - Mathematics Pricing - Mathematical models
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	pt. 1. The simplest model of financial markets -- pt. 2. Arbitrage and pricing in the one-period model -- pt. 3. Risk and return in the one-period model -- pt. 4. Numerical techniques for optimal portfolio selection in incomplete markets -- pt. 5. Pricing in dynamically complete markets -- pt. 6. Towards a continuous time -- pt. 7. Fast fourier transform.
Sommario/riassunto	Originally published in 2003, Mathematical Techniques in Finance has become a standard textbook for master's-level finance courses containing a significant quantitative element while also being suitable for finance PhD students. This fully revised second edition continues to offer a carefully crafted blend of numerical applications and theoretical grounding in economics, finance, and mathematics, and provides plenty of opportunities for students to practice applied mathematics and cutting-edge finance. Ales Cerný mixes tools from calculus, linear algebra, probability theory, numerical mathematics, and programming to analyze in an accessible way some of the most intriguing problems in financial economics. The textbook is the perfect hands-on

introduction to asset pricing, optimal portfolio selection, risk measurement, and investment evaluation. The new edition includes the most recent research in the area of incomplete markets and unhedgeable risks, adds a chapter on finite difference methods, and thoroughly updates all bibliographic references. Eighty figures, over seventy examples, twenty-five simple ready-to-run computer programs, and several spreadsheets enhance the learning experience. All computer codes have been rewritten using MATLAB and online supplementary materials have been completely updated. A standard textbook for graduate finance courses Introduction to asset pricing, portfolio selection, risk measurement, and investment evaluation Detailed examples and MATLAB codes integrated throughout the text Exercises and summaries of main points conclude each chapter