

1. Record Nr.	UNINA9910364957503321
Autore	Eberlein Ernst
Titolo	Mathematical Finance // by Ernst Eberlein, Jan Kallsen
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-030-26106-9
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (774 pages)
Collana	Springer Finance, , 2195-0687
Disciplina	330.0151
Soggetti	Social sciences - Mathematics Probabilities Financial engineering Financial risk management Mathematics in Business, Economics and Finance Probability Theory Financial Engineering Risk Management
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Part I -- Stochastic Calculus -- Overview -- Discrete Stochastic Calculus -- Lévy Processes -- Stochastic Integration -- Semimartingale Characteristics -- Markov Processes -- Affine and Polynomial Processes -- Optimal Control -- Mathematical Finance -- Overview and Notation -- Equity models -- Markets, Strategies, Arbitrage -- Optimal Investment -- Arbitrage-Based Valuation and Hedging of Derivatives -- Mean-Variance Hedging -- Utility-Based Valuation and Hedging of Derivatives -- Interest Rate Models.
Sommario/riassunto	Taking continuous-time stochastic processes allowing for jumps as its starting and focal point, this book provides an accessible introduction to the stochastic calculus and control of semimartingales and explains the basic concepts of Mathematical Finance such as arbitrage theory, hedging, valuation principles, portfolio choice, and term structure modelling. It bridges the gap between introductory texts and the advanced literature in the field. Most textbooks on the subject are limited to diffusion-type models which cannot easily account for

sudden price movements. Such abrupt changes, however, can often be observed in real markets. At the same time, purely discontinuous processes lead to a much wider variety of flexible and tractable models. This explains why processes with jumps have become an established tool in the statistics and mathematics of finance. Graduate students, researchers as well as practitioners will benefit from this monograph. .
