1. Record Nr.	UNINA9910964527003321
Autore	Taylor Stephen (Stephen J.)
Titolo	Asset price dynamics, volatility, and prediction / / Stephen J. Taylor
Pubbl/distr/stampa	Princeton, N.J., : Princeton University Press, 2007, c2005
ISBN	9786612992049 9781282992047 128299204X 9781400839254 1400839254
Edizione	[Course Book]
Descrizione fisica	1 online resource (988 p.)
Disciplina	332.60151962
Soggetti	Capital assets pricing model Finance - Mathematical models
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (p. [473]-501) and indexes.
Nota di contenuto	Frontmatter -- Contents -- Preface -- 1. Introduction -- Part I. Foundations -- 2. Prices and Returns -- 3. Stochastic Processes: Definitions and Examples -- 4. Stylized Facts for Financial Returns -- Part II. Conditional Expected Returns -- 5. The Variance-Ratio Test of the RandomWalk Hypothesis -- 6. Further Tests of the RandomWalk Hypothesis -- 7. Trading Rules and Market Efficiency -- Part III. Volatility Processes -- 8. An Introduction to Volatility -- 9. ARCH Models: Definitions and Examples -- 10. ARCH Models: Selection and Likelihood Methods -- 11. Stochastic Volatility Models -- Part IV. High-Frequency Methods -- 12. High-Frequency Data and Models -- Part V. Inferences from Option Prices -- 13. Continuous-Time Stochastic Processes -- 14. Option Pricing Formulae -- 15. Forecasting Volatility -- 16. Density Prediction for Asset Prices -- Symbols -- References -- Author Index -- Subject Index
Sommario/riassunto	This book shows how current and recent market prices convey information about the probability distributions that govern future prices. Moving beyond purely theoretical models, Stephen Taylor applies methods supported by empirical research of equity and foreign exchange markets to show how daily and more frequent asset prices,

and the prices of option contracts, can be used to construct and assess predictions about future prices, their volatility, and their probability distributions. Stephen Taylor provides a comprehensive introduction to the dynamic behavior of asset prices, relying on finance theory and statistical evidence. He uses stochastic processes to define mathematical models for price dynamics, but with less mathematics than in alternative texts. The key topics covered include random walk tests, trading rules, ARCH models, stochastic volatility models, high-frequency datasets, and the information that option prices imply about volatility and distributions. Asset Price Dynamics, Volatility, and Prediction is ideal for students of economics, finance, and mathematics who are studying financial econometrics, and will enable researchers to identify and apply appropriate models and methods. It will likewise be a valuable resource for quantitative analysts, fund managers, risk managers, and investors who seek realistic expectations about future asset prices and the risks to which they are exposed.

2.	Record Nr.	UNINA9910299942203321
	Autore	Shang Chao
	Titolo	Dynamic Modeling of Complex Industrial Processes: Data-driven Methods and Application Research / / by Chao Shang
	Pubbl/distr/stampa	Singapore : , : Springer Singapore : , : Imprint : Springer, , 2018
	ISBN	981-10-6677-9
	Edizione	[1st ed. 2018.]
	Descrizione fisica	1 online resource (154 pages) : illustrations, tables
	Collana	Springer Theses, Recognizing Outstanding Ph.D. Research, , 2190-5053
	Disciplina	670.42015118
	Soggetti	Quality control
		Reliability
		Industrial safety
		Manufactures
		Automatic control
		Statistics
		Quality Control, Reliability, Safety and Risk
		Manufacturing, Machines, Tools, Processes
		Control and Systems Theory
		Statistics for Engineering, Physics, Computer Science, Chemistry and Earth Sciences
	Lingua di pubblicazione	Inglese

Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"Doctoral thesis accepted by Tsinghua University, Beijing, China."
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Introduction -- Concurrent monitoring of steady state and process dynamics with SFA -- Online monitoring and diagnosis of control performance with SFA and contribution plots -- Recursive SFA algorithm and adaptive monitoring system design -- Probabilistic SFR model and its applications in dynamic quality prediction -- Improved DPLS model with temporal smoothness and its applications in dynamic quality prediction -- Nonlinear and dynamic soft sensing model based on Bayesian framework -- Summary and open problems.
Sommario/riassunto	This thesis develops a systematic, data-based dynamic modeling framework for industrial processes in keeping with the slowness principle. Using said framework as a point of departure, it then proposes novel strategies for dealing with control monitoring and quality prediction problems in industrial production contexts. The thesis reveals the slowly varying nature of industrial production processes under feedback control, and integrates it with process data analytics to offer powerful prior knowledge that gives rise to statistical methods tailored to industrial data. It addresses several issues of immediate interest in industrial practice, including process monitoring, control performance assessment and diagnosis, monitoring system design, and product quality prediction. In particular, it proposes a holistic and pragmatic design framework for industrial monitoring systems, which delivers effective elimination of false alarms, as well as intelligent self-running by fully utilizing the information underlying the data. One of the strengths of this thesis is its integration of insights from statistics, machine learning, control theory and engineering to provide a new scheme for industrial process modeling in the era of big data.