1. Record Nr. UNINA9910153100303321

Titolo	Artificial Intelligence in Financial Markets : Cutting Edge Applications for Risk Management, Portfolio Optimization and Economics / / edited by Christian L. Dunis, Peter W. Middleton, Andreas Karathanasopolous, Konstantinos Theofilatos
Pubbl/distr/stampa	London : , : Palgrave Macmillan UK : , : Imprint : Palgrave Macmillan, , 2016
ISBN	1-137-48880-8
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (XV, 344 p. 49 illus., 17 illus. in color.)
Collana	New Developments in Quantitative Trading and Investment
Disciplina	658.15
Soggetti	Corporations—Finance Investment banking Securities Banks and banking Risk management Economics, Mathematical Artificial intelligence - Financial applications Corporate Finance Investments and Securities Banking Risk Management Quantitative Finance Artificial Intelligence
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	1. A Review of Applications of Artificial Intelligence in Financial Domain -- SECTION I: Financial Forecasting and Trading -- 2. Trading the FTSE100 Index – ‘Adaptive' Modelling and Optimisation Techniques -- 3. Modelling, Forecasting and Trading the Crack – A Sliding Window Approach to Training Neural Networks -- 4. GEPTrader: A new Standalone Tool for Constructing Trading Strategies with Gene

Expression Programming -- SECTION II: ECONOMICS -- 5. Business Intelligence for Decision Making in Economics -- 6. An automated literature analysis on data mining applications to credit risk assessment -- SECTION III: CREDIT RISK ANALYSIS -- 7. Intelligent credit risk decision support: architecture and implementations -- 8. Artificial Intelligence for Islamic Sukuk Rating Predictions -- SECTION IV: PORTFOLIO MANAGEMENT, ANALYSIS AND OPTIMISATION -- 9. Portfolio selection as a multiperiod choice problem under uncertainty: an interation-based approach -- 10. Handling model risk in portfolio selection using a Multi-Objective Genetic Algorithm -- 11. Linear regression versus fuzzy linear regression — does it make a difference in the evaluation of the performance of mutual fund managers?

Sommario/riassunto

As technology advancement has increased, so to have computational applications for forecasting, modelling and trading financial markets and information, and practitioners are finding ever more complex solutions to financial challenges. Neural networking is a highly effective, trainable algorithmic approach which emulates certain aspects of human brain functions, and is used extensively in financial forecasting allowing for quick investment decision making. This book presents the most cutting-edge artificial intelligence (AI)/neural networking applications for markets, assets and other areas of finance. Split into four sections, the book first explores time series analysis for forecasting and trading across a range of assets, including derivatives, exchange traded funds, debt and equity instruments. This section will focus on pattern recognition, market timing models, forecasting and trading of financial time series. Section II provides insights into macro and microeconomics and how AI techniques could be used to better understand and predict economic variables. Section III focuses on corporate finance and credit analysis providing an insight into corporate structures and credit, and establishing a relationship between financial statement analysis and the influence of various financial scenarios. Section IV focuses on portfolio management, exploring applications for portfolio theory, asset allocation and optimization. This book also provides some of the latest research in the field of artificial intelligence and finance, and provides in-depth analysis and highly applicable tools and techniques for practitioners and researchers in this field. .