

Operations Research and Financial Engineering
Senior Theses Titles
Class of 2010

Wheeling Paratransit through the 21st Century: Expansion of GPS Technology in Flexible Route Transportation

Epidemiology of the H1N1 Pandemic Influenza

From Smart Grid Vision to Reality: Agent-Based Modeling of the Smart Grid

Building a Spot-Price Model for Natural Gas From Supply and Demand Fundamentals

The Impacts of High-Frequency Trading

An Investigation of Factors Affecting Real Estate Price in China

Estimating the Risk and Return of Private Equity Investments

Using Learning Curves to Optimize Government Subsidies for Photovoltaic Technology

The Non-Default Component: The Influence of Liquidity Factors on Corporate Bond Spreads

*Updating of Entropy Pooling Approach
View Confidence Levels Objectively via Model Averaging*

Simulation and Analysis of an Energy Portfolio Problem Using a Deterministic Linear Program

*Real-Time Dynamic Congestion Value Pricing, Express Toll Lane Design and Bus Lane
Throughput Improvements for the New York-New Jersey Lincoln Tunnel*

The Impact of Emissions Leakage on Greenhouse Gas Regulation

*Excessively Conservative Attitudes to Financial Instruments and Low-Risk Hedging: A
Contextual Model Proposed for the National Budget of Trinidad and Tobago*

*Improving the Efficiency of the Major League Baseball Rule IV Draft: An Application of
Machine Learning*

Navigation based Services: Request, Organization, Delivery and Consumption

*Language Processing Techniques for Text Classification with Applications to the Analysis of
Financial News Leading to Trading Strategies*

Regime Identification in Stock Markets and its Applications in Stochastic Portfolio Optimization

Optimal Dosing Applied to Glycemic Control for Type 2 Diabetes
Greening the Grid: Optimal Tax Policy for Wind and Solar Technology

Characterization and Modeling of Shipping Pick-Up and Delivery Operations

Transportation Shocks: Analyzing Transportation Networks for Increased Traffic Flow During the Olympic Games

Sovereign Wealth Funds: Their Performance in Global Financial Markets and its Implications for Regulatory Controls

Modeling Locational Spreads of Natural Gas Spot Prices: Impact of Pipeline Capacity, Gas Flow, Temperature, & Storage Level

Personal Rapid Transit: Qualitative and Quantitative Tools for Analysis

Gray Market: Building a Secondary Market for Private Company Equity

Towards Optimizing a PRT Network

Stochastic Games: The Analysis of Campaign Funds on the 2008 Presidential Race

Wind and Pumped-Hydro Power Storage: Determining Optimal Commitment Policies with Knowledge Gradient Non-Parametric Estimation

The Valuation of Natural Gas Storage: A Knowledge Gradient Approach with Non-Parametric Estimation

Batteries: Storing Wind

Utility Pricing of Collateralized Debt Obligations

The Promise of Grid Storage: Applications, Regulation, and Revenue-Maximizing Policies for Energy Arbitrage

Over the Counter Markets

Powering America: Optimizing Electricity Generation for the United States Until 2030

Cuba after Castro: Modeling the Transformation from Collectivism to Capitalism

Option-Implied Market Sentiment

Stochastic Analysis of Number Games with Jackpots & Sales Forecasting Models for Lottery Operators

Optimal Levels of Hourly Wind Generation Commitment and Reserve Portfolio Usage

Utility Indifference Pricing Under Prospect Theory

Relative Pricing of Options and Defaultable Bonds under Stochastic Volatility

Returns and Risks of the Chinese stock market -a Discrete State Hidden Markov Model Approach

Network Failure Localization Using Noisy Search Techniques

Game of Numbers: A Statistical Analysis of Rotisserie Fantasy Baseball

Optimal Information Collection and Intervention Strategy for an Infectious Disease Outbreak at Princeton University: A Partially Observable Markov Decision Process

20% Wind Generation and the Energy Markets A Model and Simulation of the Effect of Wind on the Optimal Energy Portfolio

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Panic on Wall Street: An Implied Volatility Analysis of the Financial Crisis of 2008

Utilizing Wind: Optimal Wind Farm Placement in the United States

Reduced Form Pricing Model for Certified Emission Reduction Credits

Analysis, Characterization, and Visualization of Freeway Traffic Data and the Effect of Driver Behaviors on Traffic Flows

A Model for Pricing the Complex Implicit Options in Collar Offers

Lost Decade: 1999 – 2008 The Case for Multi-Strategy Investment Management

Stocking a Perishable Good: An Inventory Control Problem

An Analysis of the Effects of News on Stock Returns Using Support Vector Machines

Inducing Sustainability: Dynamic Firm Behavior Under Environmental Regulation

Patterns of Fuel-Efficient Truck Fleet Driving and Routing: Analysis of GPS Data from the 2008 Oil Bubble

Systematic Handicapping of Horse Races Using Regression and Applied Forecasting Techniques

A Star Pattern Recognition Algorithm for Astronomical Images Using Triangles

A Statistical Approach to Verbal Autopsies: Methods to Enhance Performance and Accuracy

U.S. Ethanol Industry: Efficiency, Profitability and Possible Side Effects

Comovements of High-Yield Bonds and Equity of Firms Under Varying Market Conditions

Behavior of the Base Correlation Skew in CDOs During the Subprime Crisis

Energy Resource Allocation Under Uncertainty: Optimal Policies for the Chinese Government

Determinants of Stock market Returns in Emerging Markets

Long-Term Performance and Option Pricing of Leveraged ETFs

Smart Electricity Meters: Smart Enough to Reduce CO2 Emissions? A Study on Advanced Metering and Other Emission Abatement Strategies in the U.S.

SIZE MATTERS Is Big More Beautiful in Venture Capital Financing?

Multi Objective Decision Making Using AHP Criteria to Solve an Advertising Planning Problem

Combining Topic Features with Text Classification for Predicting Abnormal Returns Using News Articles

Empirical Analysis of Deviations from Option Market Prices Using Stochastic Volatility Models

Economics of the Nuclear Renaissance

The Role of Energy Storage in Helping Global Energy Problems Become Gone With the Wind

Credit Default Swap Indices: The Feedback Effect on Single-Name Credit Spreads

R&D and Stock Markets: Modeling Prices and Predicting Crises

Your Oil Highness: The Summer When Crude Was King An Analysis of the Crude Oil Bubble of 2008

A Statistical Analysis of CDO Price Variation and the Role of Risk Aversion Since the Onset of the Subprime Crisis

GradeRank: A Mathematical Approach to Contextualizing Grades

Modeling the Impacts of Policy on Forecasted Energy Demand in Highway Transportation

Wind Farm Valuation

Optimal Learning in the Two-Agent Newsvendor Problem

Optimal Learning for Drug Design in Ewing's Sarcoma

Greed in Corporate America

Help is on the Way: Dynamic Optimization of the Emergency Medical Services System in the City of Philadelphia

Exercise Patterns of Executive Stock Options: An Empirical Analysis

Forecasting the NBA: Optimal Betting Strategies in Basketball

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Class of 2008

Project-Based Transactions in the Cap and Trade Market for Carbon Emissions

Covariate Selection for Intensity-Based Credit Risk Models

Valuation of Swing Options using the Longstaff-Schwartz Method

Ex Post Disaster Loans: Optimizing the Small Business Administration's Decision Making Process

Optimal Risk Profiling Strategies and Testing Policies for Cardiovascular Disease in Female Patients in the United States

Optimizing Equities Statistical Arbitrage with Dynamic Programming

The VIX Index and its Options: An Empirical Investigation

Unyoking the Cash Cow Who should Own the New Jersey Turnpike?

Area-Wide Value Pricing in Manhattan: Implications for Travel in the New York Metropolitan Region

*Value Opportunities in Highway Infrastructure
Analysis of GPS Data to Better Understand The Economics of Congested Highways*

Disease Dynamics on Topologically Self-Similar Networks

Building A Market: How Artificial Agents Can Interact To Create A Realistic Model

Raaga Classification Using Machine Learning Techniques

Market Expectations during a Crisis: An Analysis of the Implied Volatility Surface of Crude Oil Options

Dynamic Congestion Pricing for Parking: Case Study for San Francisco

Demystifying Private Equity and Venture Capital via Portfolio Replication Strategies

An Examination of the Ethanol Industry's Effect on Agriculture and the Corn-Soybean Planting Decision in the U.S.

The 2007 Subprime Mortgage Crisis: Valuation of Subprime Residential Mortgage-Backed Securities

Designing the Perfect Team: Determining an Objective Strategy Towards Being an Efficient NBA General Manager

Real Options Analysis as Applied to Research and Development Project Valuation in the Pharmaceutical Industry

Forecasting Volatility: Option implied Volatility vs. Historic High-Frequency and Low-Frequency Volatility

Trading Places: Optimal Exchange Mechanisms for Kidney Donor-Recipient Pairs

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Class of 2007

Recommendation Systems: Adapting Collaborative Filtering Models to Minimal Resource Environments

An Approximate Dynamic Programming Approach for Routing a Bulk Carrier Vessel

Probability Distribution Models for the Hurricane Damage Process

Construction and Analysis of a Domestic Fashion Index

A Binomial Approach to the Optimal Timing of Reverse Leveraged Buyouts and Their Post-Offering Performance

Saving the Green: An Analysis of Hedging Strategies for the EU-ETS Carbon Dioxide Market

"Super-Indexing the GSCT": Portfolio Optimization in Commodity Futures Markets

Top-Down or Bottom-Up? An Examination of Multi-Name Credit Derivative Pricing Models

Striking a Balance Between Health Care Costs And Compliance Using Dynamic Programming

Correlation Car Crash: Credit Crisis of May 2005

Dissecting the Collapse of Amaranth Advisors LLC (2006): Natural Gas Stochastic Volatility, Irrational Position-Sizing and Predatory Trading

The Quadrivalent Human Papillomavirus Vaccine: A Cost-Benefit Analysis of Cervical Cancer Prevention Strategies

Anticipating the Future: Financial Risk Management for Princeton University

A Tour Through the Traveling Salesman Problem: An Implementation with Experiments

Specific Weather Event Risk Hedging: An Examination of the Citrus Market

Smart Cards: How Smart Are They? A New Look at Travel Behavior

Distribution of Antiviral Drugs During Pandemic Influenza

Optimal-Server Staffing: Queueing Analysis of Airline Check-In and Baggage Handling

Algorithms for Solving and Generating Sudoku Puzzles

Optimal Exercise Patterns and Valuation of Employee Stock Options: An Approximate Dynamic Programming Approach

The Client-Facing Approach to Mass Transit: Modeling Reliability on the Washington Metro

Strategic Spending: Equilibrium Strategies in Multi-Period Campaign Spending Games

Oil Supply Strategies: An Analysis of the Efficacy of Cooperative Solutions

The Carry-To-Risk Portfolio Model: A Monte Carlo Approach to Optimality

The Game Behind the Game: An Analysis of Baseball Player Evaluation Models

Approximate Dynamic Programming for Equity Portfolio Selection

Pricing Catastrophe Bonds and Industry Loss Warranties Within a Compound Poisson Process Framework

Housing Futures And Options on the Chicago Mercantile Exchange: Trading Analysis and Implications for Business and Individuals

Random Walk With a Movable Boundary

Optimizing Seed Stock Levels in the Wireless Industry

Dynamic Modeling of Optimal Housing Tenure Choice for Low-Income Households

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Class of 2006

Optimal Portfolio Rebalancing: An Approximate Dynamic Programming Approach

Are Multiple Acts of Deception Preferable to One? A Comparison of Hierarchical and Centralized Resource Allocation

Centralization and the Robustness of Military Supply Chains: A Scenario Analysis for the Design of Fuel Distribution Infrastructure

Dynamic Jet Fuel Hedging Strategies

Life Saving Decisions: A Model For Optimal Blood Inventory Management

Towards an American Model: The Impact of Venture Capital Investment Characteristics on Performance: A Comparative Study of the United States, United Kingdom and Canada

An Optimization Analysis of Eating at Popular Restaurant Chains

A Dynamic Programming Approach to Decision Making in Texas Hold'em Poker

Multivariate Analysis of NCAA Division I-A Football For The Purpose Of Predicting Games

Portfolio Optimization Involving Short Sales

The Interaction of Behavioral Agent Characteristics and Stock Prices: An Evaluation via Artificial Markets

An Analysis of Market Efficiency in the National Basketball Association Betting Market

The Effects of Uncertainty in Oil Reserves: Stochastic Resource Levels in Cournot Competition

Revenue Management in Major League Baseball

Forecasting Currency Volatility and Evaluating its Impact on Quantitative FX Strategies

The Soccer World Cup: A Mathematical Approach

Dynamic Optimal Portfolio Rebalancing: Strategies for Corporate Finance

Mergers and Acquisitions: A Behavioral Economics Approach

A Parametric Analysis of Private Equity Performance

An Investigation of Efficiency in National Football League In-Game Betting Markets

Improving the Spatial Accuracy of Digital Maps: An Algorithm to Align the Road Network to Real GPS Data

Fueling Change in The United States: An Analysis of Gasoline Price Elasticity

Optimal Gambling Strategies & Their Financial Applications

Can PRT Perform? Surge Management Analysis Applied

The Valuation of Real-Time Information for Road Surface Navigation Systems

News or Noise: Text Classification of Financial News Using Support Vector Machines

Modeling Treatment Patterns & Outcomes of Schizophrenic Patients

Interest Rate Model Calibration: An Analysis of Rank vs. Stability

Path Theory: A Model of Pedestrian Route Choice

The Effect of Political Reforms on Interest Rates as Turkey Negotiates Accession to the European Union

Dynamic Optimal Staffing of Police Patrol Services

Asymmetric Objectives & Inefficient Markets: A Non-Parametric Predictor for Major League Baseball Games And the Evaluation of Betting Lines

Volatility Dynamics in the Money Market

Evaluating the Hedge Fund Hype: Is There A True Performance Profile of Hedge Funds?

A Modern Examination of Lee's Investor Sentiment Theory behind the Closed-End Fund Discount

Discipling The World From Home: A Relative Efficiency Analysis of International Student Ministry in United States Universities

Analyzing Exercise Behavior After IPO Lockups: A Theoretical Incentive Model to Optimize Shareholder Exercise Strategy

Empirical Analysis of Executive Stock Option Block Exercise

Pricing Crash Options Under Jump Diffusion Models

A Discrete Model for Real Options and a Fair Gamble

Applications of the Beer Distribution Game in Supply Chain Decision Making

Modeling the Allocation of Trailers in the Southeastern United States for Future Hurricane Preparation

Approximate Dynamic Programming Methods For Speeder Apprehension

Measuring Risk in Sectors of the S&P 500: Value-at-Risk and Expected Shortfall Using GARCH

Path Estimation Using Cellular Handover

An Optimization Model for Evaluating Earthquake Mitigation Strategies in San Francisco

Optimal Trading: Dynamic Stock Liquidation Strategies

The Value of Marriage: Valuing the Pacification Effect on Young Men

Forecasting Motion Picture Box-Office Returns and Analysis of the Hollywood Stock Exchange

Investigating the Risk-neutral Intensity Process for the Electricity and Other Sectors

A Physical Approach to Asset Bubbles

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Playing Games with the Environment: A Quantitative Analysis of CO₂ Abatement Strategies

The Stock Market Overreaction Mystery: Human Judgment Bias in Financial Decision-Making

The Structure and Effectiveness of Price Hedging Contracts Implemented by Independent Oil and Gas Producers

Modeling Optimal Stocking Strategy for Booksellers with Emphasis on Browse Purchase

Optimal High School Sizes in Relation to School Demographics

Risk Assessment in the California Energy Crisis

Investment Under Uncertainty: Optimal Strategies of CO₂ Emitting Firms Under the Kyoto Global Emissions Trading Market

U. S. Trust Fund Management: Federal Spending Under the Influence of Trust Fund Surpluses

Insights into the Nature of Successful Acquisitions: An Empirical Approach

Approximate Dynamic Programming for Aerial Refueling

A Method to March Madness: Logistic Regression and the NCAA Tournament

A Model for the Dynamic Management of Power Transformers

Below the Financial Mendoza Line: Identifying Relocation and Contraction Candidates in Major-League Baseball

An Analysis of the Practical Application of Pari-mutuel Pricing Systems

Valuing Executive Stock Options with Blackout Periods

The Wisdom of Gamblers? An Analysis of Efficiency in NFL Betting Markets and a Profitable Betting Algorithm

Google Versus Goldman: Can Dutch Auctions Revolutionize Wall Street?

Effects of Nonstationary Emergency Call Arrival Rates on an Ambulance Response System

Catastrophic Bonds Linked to Terrorism: Quantifying and Pricing Terrorism Risk in the United States

A Queuing Theory Analysis of the Princeton University Office of Information Technology Help Desk Center

The Wealth of Nations: An Analysis to the Correlation between United States Economic Indicators and the Probability of Default of Emerging Market Countries

Exploring American Demand for Canadian Pharmaceuticals: A Balance between Capital Market Theory A Moral Responsibility

Identity in Print: Authorship Attribution Using Markov Chains of liberal and Grammatical Components

Risk Measures and Capital Regulation

Describing the Dependence Structures between Temperature and Natural Gas Prices

Interaction-Induced Enhancement of Portfolio Credit Risk

Credit Spread Dynamics and the Macro-Economy: An Empirical Investigation

An Investigation of Incomplete Information Models of Default: A Case Study of Enron's Collapse

Neural Networks: An Analysis of the Types of Networks to use with Specific Stock Industries

Revenue Maximization for Software; Dynamically Solving the Versioning and Pricing Problems

Hello, Is Anybody In There? The Search for the Optimal Route-Planning and Decision-Making Method for Autonomous Ground Vehicle Control

Information Acquisition and Baseball= A Study of the Statistical Value of Batting Average

Modeling the Spread of HIV-AIDS and the Financial Resource Needs in China

The Washington Road Tunnel Project: Integrating the Campus of Princeton University

How Much are they Really Worth? Optimization of the NBA Free Agent Market

Managing Terrorist Risk at Sea Ports: A National Security Dilemma

Buying and Selling Movies: An Analysis of the Hollywood Stock Exchange

Measuring the Relative Accessibility of the Princeton Campus for People with Disabilities

Optimization Strategies for Portfolios Containing Hedge Funds: An Investigation of Modern Portfolio Theory and the Effects of Regime Shifts

Stochastic Modeling of the PCS Loss Index: A Sensitivity Analysis and its Implications for Catastrophe Bond Pricing Models

Putting a Price on Performance: A Study of Risk Hedging in Major League Baseball

Migration and Institutionalized Exclusion in Shanghai

Cities of Foam: Exploring Nigeria's Potential for Privatized, Low- Cost Housing Development

Ideal Damping Factor for Simulating Portfolio Returns: A Market Representative Approach

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The End of Congestion: Developing a Large Scale “Floating Car Data” System

Evolving Signals to Solve a Coordination Problem

Competition in the Airline Industry: The Battle Between Legacy And Low Cost Carriers

Capacity Constraints in Repeated Competition: An Extended Game Theory Approach to Duopoly

Stochastic Transportation Networks: Distribution of Link and Path Travel Times

Modeling the Impact of Funding on Tuberculosis Control in India

Proposed Changes to Princeton Dining Services Under a Four Year Residential College System

Modernizing Stocks and “Barry Bonds”: Evaluating Players and Optimal Team Strategy in Baseball Free Agent Markets

Stocks and “Barry Bonds”: Evaluating Players and Optimal Team Strategy in Baseball Free Agent Markets

Stochastic Efficiency in Portfolio Optimization: Properties and Computation

Learning to Buy Futures: An Approximate Dynamic Programming Approach

Improving the Lots: Actuarial Testing, Survival Analysis, and Megan’s Law

Credit Risk Extensions to the Markovian Model

An Epidemiological Study on the Growing Problem of Obesity in China

A Statistical Analysis of 1990s New Yorker Fiction

Evaluation and Improvement of Technical Trading Rules on the Foreign Exchange Market

An Analysis of Expected Shortfall as a Method of Measuring Risk in Credit Portfolios

Real Options: A Comparative Evaluation of Existing Models

Improving the ORFE Engineering Program Through Stimulation

Hedge Funds: When and Where to Invest

Using Monte Carlo Simulation to Determine the Exercise and Price of Bermuda Options

The Case for Executive Stock Options: Tailoring Option Plans to Maximize Shareholder Value

Extendible Options: Pricing and Analysis A Comparison of the Auction and Bookbuilding Methods for Initial Public Offerings

A Rounding Model for Option Pricing

Hedging European Options in the Presence of Transaction Costs

Corporate Accounting Fraud: Are There Statistical Indications?

The Term Structure of Credit Default Swaps in a Structural Yield Model

Time as Money: Applying Financial Risk Metrics to Shortest Path Problems

PRT: After 35 Years of Innovation is the Future Finally Here?

Princeton Admissions Modeling: Linear Optimization for Predicting Academic Results and Underperformance

Optimal Direct-To-Consumer Advertising for the Pharmaceutical Industry

Severe Acute Respiratory Syndrome: Financial Analysis and Methods for Impact Reduction

Pricing to a Different Tune: A Mathematical Model for the Sale of Music in the Digital Marketplace

How Much Is Enough? Optimizing Loans at the International Monetary Fund

Value Optimization for Trucking Networks

Identifying Inefficiencies in Current Methods of Determining Baseball Contracts

The Option to Abandon as Applied to the Sequential Investment Problem

Negative Prices in Competitive Electricity Markets

Re-engineering Portfolio Theory: Optimizing the Diversification of Moët Hennessy-Louis Vuitton (LVMH)

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Comparison of the Asymptotic Virtual and Test Sojourn Times for the Time Dependent M/M/I Processor Sharing

Comparing Prevalent Inter-Bank Payment Systems and Possible Improvements through the Application of Queuing Algorithms: A Simulation Approach.

Quantitative Evaluation of Consistent Forward Rate Processes.

An Quantitative Analysis of the 2000 California Electricity Crisis

From Horses to Hedging: An Analysis of Parimutuel Pricing Systems for Financial Derivatives.

Detecting Terrestrial Planets in the Cosmos: Optimization Algorithms for the Correction of Phase Aberrations in the Shaped Pupil Coronagraph

Inflation-Linked Bonds: Multi-Period Asset Allocation Strategies.

Modernizing Microfinance: Comparison of Credit Scoring Methods.

A First Step Toward Automated Map Realignment.

Valuing Employee Stock Options with a Modified American Option Pricing Model.

Basic Human Decision Making: An Analysis of Route Choice Decisions by Long-Haul Truckers.

Making Efficient Change in American Public Education.

Optimal Baseball Betting Strategies: An Analysis of the Money Line.

Buy the Book: Optimization the Forecasting Strategies of the Princeton University Store Textbook Department.

A Mathematical Study of the Price Stability of Various Sectors in the US Financial Market.

Arbitrage Valuation in Incomplete Markets: A Study of Employee Stock Options.

A Comparative Analysis of Credit Risk Models and their implications for Capital Adequacy.

Estimating the Term Structure of Interest Rates Using Linear Programming and Parsimonious Functional Forms.

Treating Cancer with Computers: An Optimization Methods for Radiotherapy Treatment Design.

The Effect of Derivatives on the Commercial Banking Industry.

Brass Paradox and Traffic Equilibrium

Collateralized Debt Obligations: An Examination of the Various Structures, The Market Place, Credit Risk, and Over-Collateralization.

Approximate Dynamic Programming for Fleet Management.

The Price of Spending More: Re-examining the Luxury Tax in Major League Baseball.

Reacting in Real Time: Using Historical and Real-Time Information in Forecasting Link Travel Times.

Beyond Bar Codes: A Benefits Analysis of Auto-ID Technology in Retail.

Rezoning for Revenue: A Goal Programming Approach to Property Taxation.

The Economic Effects of Defense Spending In Israel

Assess the Roles of Race and Gender in the Achievement Disparity Found in the New York City Voucher Experiment.

The Value of Developed Real Estate Using Real Options.

Your Team is Going Broke: Now Switch to Variable Ticket Pricing. An Analysis of NBA Game Attendances to be Used with Revenue Management Techniques.

Does Post Merger Performance Warrant the Premia and the Fees?

The Correlation Between SO₂ Allowance Transactions and Emissions Rates: An Empirical Analysis.

Optimal Initial and Seasoned Equity Offering Strategies for Technology Firms in the 1900s.

Pop goes the Market: An Analysis of the Current Real Estate Industry as Seen Through

the Patterns of Past Bubbles.

Achieving Road Safety through Information: Bringing Real-Time Weather Data to In-Vehicle Navigation Systems.

Price Volatility Risk Management in the Ethanol Industry.

Assimilating Distributed Expert Knowledge: The Updateability of Map Information.

Taking AIM at Stock Price Fluctuations: Applications of Financial Engineering and Artificial Intelligence Methodology to Correlate Stock Prices and News Events.

Speculation, Liquidity, and Information: The Puzzle of Chinese B-Shares

The Influence of Nationally Recognized Statistical Rating Organization: An Analysis of the Effects of Different Types of Moody's Rating Downgrades on the Equity Market.

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Class of 2002

Optimization with a Pattern Metric: An Application for Mutual Fund Investing

Orange County, Back in Black: An Evaluation of the Post-Bankruptcy Rehabilitation of the Municipal Investment Pool of Orange County, CA

Financial Techniques for Pricing Catastrophic Risk: A Look at Asian Option Approaches

The Cooperative and Adaptive Information Chains: What is the Right Information Chain For Your Product?

Mathematical Models for the Marketing Trade: The Development and Application of Decision Science Models in New Product Management

An Empirical Approach to Pricing Options

Making a Connection: A Study of Cellular Communication

Modeling Extreme Rainfall in Lahore, Pakistan, Using Extreme Value Theory and Copulas

An Analysis of Venture Capital Returns From 1980-2001

The Optimization of Pricing Decisions Over a Dynamic Shipping Network Using Stochastic Gradient Algorithms

The Volatile Nature of Mergers: A Study of Merger-Induced Volatility Shifts and Their Impact on Call Option Pricing

Collateralized Fund Obligations: Harnessing the 'Money Machines' for Fixed Income Investors

Assignment Decision for an Icelandic Fishing Fleet

A Disaggregate, Time-Dependent Morning Work Trip Demand Model and Data Set for New Jersey: Methods, Results and Applications

Jump Process Approaches to the Modeling of Default Risk

Bandwidth Pricing Under Network Arbitrage Conditions

Market-Based Solutions for Peak Hour Congestion in the Trenton-New Brunswick Route 1 Corridor

Adaptive Expectations and the Term Structure of Implied Volatility

Modeling the Spread of HIV/AIDS and the Allocation of Financial Resources for Prevention Methods in Zimbabwe

Operation Pluto: A Mission to the Planet of Darkness

Baseball Pitching Strategies Using Stochastic Optimization

Energy Risk Management for the University Power Plant

Pay Now, Lose Later: Overpricing the First Round of the NFL Draft

Blood Bank Inventory: An Application of Queuing Theory

Analyze Share Purchases: Changes in the Returns, Variances, and Distributions of Stock Prices

Designing Weather Derivatives: Hedging the Weather Risk for the Philadelphia Zoo

Optimization of Valuation Techniques with an Emphasis on Seed and Early Stage Companies

Managing Political Risk: Linking Risk Ratings to Economic Indicators

The Future of Income-Contingent Student Loans and a Case Study of the NYU School of Law's LRAP

Optimal High School Size in an Urban Environment

Equity Market Overvaluation (1995-2000)? A Mutual Fund Flows and Earnings Study

Pricing Reinsurance Premiums Using Conditional Loss Combinations

Avoiding the Currency Crisis Trap on the Way to Development: Optimal International Reserves for Emerging Markets

A Calculation and Analysis of Implied Volatility For American-Style Stock Options

Estimating Default Correlations

Intradaily Patterns and Long Memory in Heteroskedastic Processes: The Turkish Lira and the Euro

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Class of 2001

Resettable Executive Stock Options

Stock Option and Long-term Incentive Issues for Executive Compensation

Risk Management: An e-Business Perspective

A Second-order Description of Implied Volatility from an Asymptotic Analysis of Stochastic Volatility Models

Modeling Consumer Choice in the Health Insurance Market

Quasi-Data Envelopment Analysis: A Guide to Fairer, and More Personalized College Rankings

A Technique for Evaluation and Improvement of Digital Map Databases Using GPS Data

En-Route Commerce and Advanced Route Choice for Personal Travel Assistants

The Origins of Randomness in the Volatility of Asset Returns

Modeling Common Stock Returns Using Brownian Motion and a Poisson Process with a Deterministically Changing Arrival Rate

Forecasting the Hong Kong & Singapore Markets Using the Arbitrage Pricing Theory

An Analysis of Spin-Off Value Creation: An Agency Theoretic Approach

The Role of Underwriter Reputation in the Initial Public Offering Process

Multidimensional Corporate Profile: Synthesizing the Layers of the Industrial Organization Model

Consumer Decisions: A Model for the Flow of Information

Sensitivity of Value at Risk for European Options to Simplifying Assumptions and Parameter Estimation

Sizing Research and Development Portfolios in the Pharmaceutical Industry

Incorporating Uncertainty in Nonprofit Budgeting

Application of Stochastic Dominance and Exponentially Weighted Moving Averages on the Pharmaceutical and Biotechnology Industries

Multi Product Inventory With Substitution In An Electronic Commerce Setting

Learning to fly: An Adaptive Dynamic Programming Approach for the Air Mobility Command Problem

The Future of the Strategic Petroleum Reserve

Impact of Alternative Energy Resources on OPEC Strategy: A Dynamic Model

A Practical Approach to Corporate Default Probability

A New Look at Tender Offer Premiums and Their Predictive Power

The Sound of Money: A Financial Engineering Approach to Recording Contract Profit Maximization

Mixed-Integer Programming in Portfolio Construction

Experiments in Electronic Publishing: Pricing Serial Novels?

Spanish 21: An Investigation of Optimal Playing Strategies

The Economic Impact of Charter Schools and Educational Vouchers on the Princeton Regional School District

Parity in the National Football League: The Change in Competitive Balance as a Result of the 1993 Collective Bargaining Agreement

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Class of 2000

Optimal Portfolio Selection of Private Equity Investments

Options On High Yield Debt: A Theoretical Pricing Methodology and Market Implementation Analysis

The International Flight to Quality: Evaluating Liquidity Risk in Fixed-Income Markets

Catastrophe Bonds: An Evaluation Past Present Future

A Theory of The Firm: Structure, Investment Strategy and Risk Analysis to Maximize Capital Owner Wealth

Hedging Mother Nature: A Statistical Overview of Weather Derivatives and the Implementation of a Proposed Non-Parametric Simulation Model

Risk Aversion, Investor Behavior and IPO Pricing: Can deception really make us better off?

Convertible Bond Pricing and Markets: An Analysis of the Spread between Theoretical and Trading Prices

The Variance Gamma Option Pricing Model: An Empirical Evaluation & Comparison to Black-Scholes

The Importance of Flexibility: Real Options Valuation of Pharmaceutical Research and Development Projects

Option Valuation Under Stochastic Stock Price Volatility: The Constant Elasticity of Variance Model

Scenario-Based Optimization Framework For Mergers & Acquisitions In Earthquake Insurance Businesses

Yield Trends in the Asset-Backed Securities Market 1985-1999

The Benefits of Various Objective Functions Associated with the Linearized Optimal Power Flow Problem

Substitutable Inventory and the Value of Observable Consumer Preference in E-commerce

Analysis of Transportation Policies as They Affect Magnet Students in the Houston Independent School District

The Application of Minimum Cost Machine Scheduling Algorithms to Job Shop Manufacturing

Analysis of the Sampling Mechanism for Providing Travel Time Information

Forecasting Professional Football Scores and Optimizing a Portfolio of Wagers on NFL Games

A Report From The Flight Deck: An Empirical Analysis of the Fractional Jet Ownership Industry

The Feasibility and Effectiveness of the Planned Comprehensive Mass Transit System in Denver

The Application of Constrained Optimization Towards Improved Statistical Analysis of fMRI Images

Elements of Automated Intelligent Vehicles: Image Recognition and Collision Avoidance

Bandwidth Allocation in Packet Networks Using Class and Delay Based Queueing

Improving Individual Decision-Making Through Increased Access to Information