2009 International Conference on Business Intelligence and Financial Engineering

BIFE 2009

Table of Contents

Preface
Organizing Committee
Program Committee
Workshop Co-chairs
Reviewers

Artificial Neural Networks

An Algorithm for Determining Neural Network Architecture Using Differential Evolution ................................................................. 3

Md. Zakirul Alam Bhuiyan

Predicting China's Energy Consumption Using Artificial Neural Networks and Genetic Algorithms .......................................................... 8

Shouchun Wang and Xiucheng Dong

Stock Bubbles' Nature: A Cluster Analysis of Chinese Shanghai a Share Based on SOM Neural Network .......................................................... 12

Zhi Gao and Xuchu Xu

The Application of Artificial Neural Networks in Risk Assessment on High-Tech Project Investment .......................................................... 17

Hua Jiang

IPO Pricing of SME Based on Artificial Neural Network .......................................................... 21

Xuemei Chen and Yangbo Wu

Appraisal of High-Tech Zone Technology Innovation Ability Based on BP Neural Network .......................................................... 25

Aifeng Wang and Zhiqiang Liu
The Finger Movement Identification Based on Fuzzy Clustering and BP Neural
Network .......................................................................................................................................................29
   Lanlan Yu, Tianxing Meng, and Jian Hu
An Application of Hopfield Neural Network in Target Selection of Mergers
and Acquisitions .....................................................................................................................................................34
   Hongjiu Liu and Yanrong Hu
Modelling and Prediction of the CNY Exchange Rate Using RBF Neural
Network ...............................................................................................................................................................38
   Zhaocheng Liu, Ziran Zheng, Xiyu Liu, and Gongxi Wang
A Method of Gear Fault Diagnosis Based on CWT and ANN .................................................................42
   Zhi'An Song and YuFeng Song
Research of Dispatching Method in Elevator Group Control System Based
on Traffic Mode Identify ........................................................................................................................................46
   Jun Wang, Airong Yu, Xiaoyi Zhang, and Lei Qu
Power Futures Price Forecasting Based on RBF Neural Network ..........................................................50
   Kewei Zhang and Quansheng Shi
Personal Credit Rating Assessment for the National Student Loans Based
on Artificial Neural Network ..................................................................................................................................53
   Xiao-jie Zhang and Jian Hu
Integration of Unascertained Method and Neural Networks in Financial Early
Warning ................................................................................................................................................................57
   Huawang Shi
Anti-dumping Early-Warning Model Based on Entropy Weight and SOM .............................................61
   Mei Liu and Jianna Zhao
Interweave Neural Networks with Evolutionary Algorithms, Cellular Computing,
Bayesian Learning and Ensemble Learning ...........................................................................................................65
   Jing Zhang

Evolutionary Algorithms
Multi-colony Ant Algorithm Using Both Repulsive Operator and Pheromone
Crossover Based on Multi-optimum for TSP ..................................................................................................69
   Enxiu Chen and Xiyu Liu
Chaotic Search-Based Adaptive Immune Genetic Algorithm ..................................................................74
   Yuanguo She and Chengwu Shen
Fuzzy Evaluation on Software Maintainability Based on Membership Degree
Transformation New Algorithm—M(1,2,3) .......................................................................................................79
   Hua Jiang
The Co-evolution between Companies within E-Supply Chain Management
in the Era of Digital Economy ............................................................................................................................84
   Jin Zhao and Yanping Liu
An Improved Genetic Algorithm Based on hK1 Subdivision and Fixed Point ........................................88
   Yuzhen Dong, Jingjun Zhang, Ruizhen Gao, and Yanmin Shang
A Hybrid Particle Swarm Optimization for Numerical Optimization ............................................................92
Zhengang Ning, Liyan Ma, Zhenping Li, and Wenjian Xing

A Risk Measure with Conditional Expectation and Portfolio Optimization with Fuzzy Uncertainty ..................................................................................................................................................97
Xiaoxian Ma, Jilin Qu, and Jianquan Sun

A Dynamic Information Sending Model and the Optimization Algorithm for Customer Relationship Management ..................................................................................................................102
Xuelian Wang and Shiquan Zhong

A Hybrid Algorithm Based on Genetic Algorithm and Simulated Annealing for Solving Portfolio Problem .................................................................................................................................106
Zhufang Wang and Donghong Cui

An Improved Genetic Algorithm Based on Subdivision Theory ........................................................................110
Jingjun Zhang, Yanmin Shang, Ruizhen Gao, and Yuzhen Dong

Object Identification Based on Deformable Templates and Genetic Algorithms ..............................................114
M. A. Moni and A. B. M. Shawkat Ali

A Constructive Method of Multicriteria Decision Functions Based on GP Algorithm ..........................................................118
Sichun Wang

Artificial Immune Systems and Swarm Intelligence

An Application of Artificial Immune Algorithm for Load Balancing in VOD Cluster ..........................................................122
Xinhua Jiang and Lina Zhang

On Diagnosis Prototype System for Motor Faults Based on Immune Model .........................................................126
Yuling Tian

Support Vector Regression and Immune Clone Selection Algorithm for Predicting Financial Distress ................130
WenJie Tian and ManYi Wang

Ant Colony Optimization Algorithm for Vendor Selection in Information Systems Outsourcing ..................................................134
Fu-ji Chen and Ping Cao

Support Vector Machines

Hybrid Classifier Using Neighborhood Rough Set and SVM for Credit Scoring .........................................................138
Ping Yao

Stock Return Forecast with LS-SVM and Particle Swarm Optimization .................................................................143
Wei Shen, Yunyun Zhang, and Xiaoyong Ma

The Evaluation of Bidder's Competitive Power Based on LS-SVM Optimized by Dynamic Inertia Weight PSO Algorithm ................................................................................................................................148
Xiu-e Yuan and Xiaoya Sun

Forecasting Model of Mass Incidents in China - An Explorative Research Based on Support Vector Machine ..........................................................152
Jiashu Zhou, Erping Wang, Yiwen Chen, Xuanna Wu, Yujie Ma, and Yingjie Tian
# Rough Sets and Fuzzy Logic

Using VPRS-Based Group Decision-Making to Evaluate Partner Relationship in the Value Network of a Mobile Portal ................................................................. 156  
  Gang Xie, Wuyi Yue, and Shouyang Wang

A New Method of Membership Conversion for Fuzzy Evaluation of the Oil Storage Safety .............................................................. 161  
  Kai-di Liu, Jin Wang, and Yan-jun Pang

A Fuzzy Pay-Off Method for Real Option Valuation ............................................. 165  
  Mikael Collan, Robert Fullér, and József Mezei

Fuzzy Clustering Ensemble Algorithm for Partitioning Categorical Data ......................... 170  
  Taoying Li and Yan Chen

Risk Evaluation of Real Estate Based on AHM and Fuzzy Set .................................. 175  
  Yancang Li and Juanjuan Suo

A New Method of Fuzzy Linear Programming Problems ......................................... 179  
  Tang Wenguang and Luo Yunling

Empirical Analysis of the Anti-disturbance Coefficient of Financial System to Fluctuation Impact Based on the Duffing Equation in Chaos .................... 182  
  Ruixiang Wu

Fast Face Detection Based on Fuzzy Set Theory .................................................. 186  
  Hongping Deng and Jian Zhang

Fuzzy Comprehensive Evaluation Model on University Teaching Quality ..................... 190  
  Hongjun Gao, Yunfeng Song, and Wei Liao

User Analysis Based on Fuzzy Clustering .................................................................. 194  
  Ming Yang and Hong Li

# Machine Learning

Text Classification Using Semi-supervised Clustering ............................................. 197  
  Wen Zhang, Taketoshi Yoshida, and Xijin Tang

Design of Chinese Text Categorization Classifier Based on Attribute Bagging ............. 201  
  Xiang Zhang, Mingquan Zhou, Lili Dong, and Na Ye

Mining Multi-relational Frequent Patterns in Data Streams ..................................... 205  
  Wei Hou, Bingru Yang, Yonghong Xie, and Chensheng Wu

Research and Design of Extension Case Base Based on CBR ................................... 210  
  Dan Han, Zhiwei Ni, Gongrang Zhang, Hongyu Wang, and Jun Yan

Algorithm for Agent Collaborative Learning Task Allocation Based Graph Framework ........................................................................................................ 215  
  Shumian Yang, Lianhai Wang, and Jian Liu

Gradient Learning Approach for Variable Selection in Credit Scoring ....................... 219  
  Quan-Wu Xiao and Lei Shi

Large-Scale Hierarchical Text Classification Based on Path Semantic Information ......... 223  
  Feng Gao, Chengrong Wu, Naiwang Guo, and Danfeng Zhao
Car Number Plate Detection Using Multi-layer Weak Filter .................................................................228
   Ruliang Zhang and Yun Zhang
An Improved Spectral Clustering Algorithm Based on Neighbour Adaptive Scale ......................................................233
   Ruijun Gu and Jiacai Wang
An Enhancement of K-means Clustering Algorithm .........................................................................................237
   Jirong Gu, Jieming Zhou, and Xianwei Chen

Portfolio Selection and Optimization

Tracking Error Analysis of Optioned Portfolio Optimization ........................................................................241
   Jianfeng Liang and Jingjun Liu
Mean Conditional Value-at-Risk Model for Portfolio Optimization .................................................................246
   Jianwei Gao and Lufang Liu
Optimal Life-Cycle Portfolio Choice for Chinese Residents with Housing ......................................................251
   Lingling Huang and Zhixin Liu
Modeling and Analysis of the Combined Problem of Annuity Planning and Consumption-Investment Selections ...................................................................................................................256
   Zhisheng Li
Portfolio Construction: Using Bootstrapping and Portfolio Weight Resampling for Construction of Diversified Portfolios ...........................................................................................................261
   Kai Bartlmae
Comparative Analysis of Multi-period Portfolio Strategies ................................................................................266
   Heping Xiong, Yiheng Xu, and Yi Xiao
On Optimal Risk/Return-Efficient Arbitrage Portfolio .....................................................................................270
   Shuhong Fang
Multistage Stochastic Programming Model of Portfolio Selection for Life Insurance Companies in China .................................................................................................................................274
   Ran Qu and Zhenting Qu

Financial Time Series Forecasting and Analysis

A Novel Hybrid Intelligent Model for Financial Time Series Forecasting and Its Application .................................................................................................................................279
   Wei Wang, Hong Zhao, Qiang Li, and Zhixiong Liu
An Adaptive Filtering Technique for Time Series Search ..................................................................................283
   Bin Mu and Jinlai Yan
Robustness Analysis and Algorithm of Expected Shortfall Based on Extreme-Value Block Minimum Model .................................................................................................................................288
   Shide Ou and Danhui Yi
A TEI@I-Based Integrated Framework for Port Logistics Forecasting ............................................................293
   Xin Tian, Xiaoshan Lu, and Xingmai Deng
The Volatility of Return, Trading Volume and Amount in Different Scales ..........................................................297
   Shinan Cao, Honggang Li, and Handong Li
Tools for a New Demand Forecasting Paradigm ‘Individual Demand Forecasting’ ..............................................................................................................................................302
Zhongjun Tang and Jing Xiao

Options Pricing and Valuation

American Options Pricing on Multi-core Graphic Cards ..........................................................307
L. A. Abbas-Turki and B. Lapeyre

Analysis of ERP II Implementing Option Problem with Asymmetric Information .........................312
Wang Lina and Keon Milis

Warrant Pricing Model with Autocorrelated Underlying Stock Returns ........................................317
Jianquan Sun and Xiaoxian Ma

Warrant Pricing Bias in China's Stock Market and Its Causes ........................................................321
Yue Li and Xiangning Wang

A Fast Algorithm for Solving the Pricing of American Options .....................................................325
Xiaoyu Ren, Shenghong Li, and Xining Shao

Optimal Stopping with Model Uncertainty and Pricing the American Option ................................329
Guoqing Zhao

Pricing Longevity Bonds Based on Stochastic Mortality Forecasting by Panel Data Procedures ........333
Chengli Zheng and Ting He

Investment Value of Convertible Bonds Based on Binary Tree ......................................................338
Shujun Ye, Yalan Wang, and Ying Li

Pricing Convertible Bonds with Reset Clauses and Stochastic Interest Rates ................................342
Jingyang Yang and Shenghong Li

The Investment-Uncertainty Relationship in a Real Option Model ..............................................346
Shanshan Ding, Liugen Wang, and Shenghong Li

Capital Requirement and Allocation for Insurance Companies by the Co-TailVaR-Based Insolvency Exchange Option Method ........................................................350
Yongfeng Wei, Zhaoben Fang, and Zhang Tao

How to Calculate the Stockholders' Cost of Stock Option Incentive ............................................355
Caiyu Zhang, Guoqing Huo, and Keping Lu

Financial Diagnosis and Risk Management

Stock Fluctuations Anomaly Detection Based on Wavelet Modulus Maxima ................................360
Zhijun Fang, Guihua Luo, Shenghua Xu, and Fengchang Fei

Application of Discretization in the Use of Logistic Financial Rating ........................................364
Yuzhou Liang and Haiyan Xin

Integration of Internal Control and Risk Management .................................................................369
Yanhong Pang and Daojin Shi

A Markovian Model for Default Risk in a Network of Sectors .....................................................373
Wai-Ki Ching, Ho-Yin Leung, Hao Jiang, and Liang Sun

The Study on Hedging Model Based on Risk Tolerance of Hedgers ............................................378
Cong Sui, Guotai Chi, and Zhongyuan Yang
Risk and Cost Analysis in Supply Chain Structure with Simulation .........................................................381
  Min Li and Kin Keung Lai
Nonlinear VaR Model of FX Options Portfolio Based on Importance Sampling Technique ..........................386
  Rongda Chen and Jinrong Lu
On the Time to Ruin for Erlang(2) Risk Model in a Markov Environment ..................................................391
  Cong Gu, Shenghong Li, and Bo Zhou
Inventory Replenishment Model for Perishable Products in Two-Level Supply Chain ...................................396
  Dongjie Shen, Kin Keung Lai, and Liang Liang
The Revenue Sharing Contract Design of the Closed-Loop Supply Chain Coordination with Loss-Averse Retailer .................................................................401
  Cheng-dong Shi and Dun-xin Bian
Demand Disruptions and Coordination of a Supply Chain with Convex Production Cost Function ............406
  Wang Chuantao, Ji Shouwen, Shen Jinsheng, and Han Xiangyu
The Compensation Model for Default-Risk of Corporate Bonds in China under Kalman Filter .................410
  Kaihao Liang and Kin Keung Lai
An Integrated Risk Management Model for Financial Institutions ..........................................................414
  Xiaofei Peng
Simple Analysis on the Function of Risk Management in Construction Enterprises Development ................419
  Zhu Mingqiang
Fuzzy Quality Synthetic Evaluation on Project Investment Decision ..........................................................423
  Xin Li Wang and Li Ping Yan
The Delta Hedging’s Application in Credit Risk Management ................................................................427
  Shujun Ye and Zelei Fan
Empirical Analysis of Chinese Open-Ended Fund’s Liquidity Risk ............................................................431
  Xiaofeng Zhang and Xiaohua Zhong

**Data Mining and Knowledge Discovery**

A Scheduling Strategy for OLAM Tasks and Its Application in a Financial BI System ..................................435
  Yazhuo Gao, Zhiwei Ni, and Yuxiao Zhao
A New Approach with Convex Hull to Measure Classification Complexity of Credit Scoring Database ....441
  Ligang Zhou, Kin Keung Lai, and Jerome Yen
A New Classification Method for PCA-Based Face Recognition ................................................................445
  Xiaofei Zhou, Yong Shi, Peng Zhang, Guangli Nie, and Wenhan Jiang
A New Research Field: Intelligent Knowledge Management ..................................................................450
  Lingling Zhang, Jun Li, Aihua Li, Peng Zhang, Guangli Nie, and Yong Shi
Organizational Structure Mining Based on Workflow Logs .................................................................455
   Ang Gao, Yang Yang, Ming Zeng, Jing-Le Zhang, and Yue-Wei Wang
A Survey of Interestingness Measures for Association Rules ...............................................................460
   Yuejin Zhang, Lingling Zhang, Guangli Nie, and Yong Shi
A Study of the Gap from Data Mining to Its Application with Cases ..................................................464
   Aihua Li and Lingling Zhang
A Time-and-Times-Limited Strong Direct Anonymous Attestation Scheme ...........................................468
   Yue Chen, Hong-hu Zhen, Jing Cao, and Jing Shao
Research on Mining Association Rules in Distributed System ...........................................................472
   Ailing Wang
Modeling and Analysis of Manufacture System Using a SPN Approach ................................................476
   Liang Sun
A Strategy of Semantic Information Extraction for Web Image ...............................................................480
   Wenpeng Lu, Ruojuan Xue, Haixia Li, and Jianguo Wang

Customer Relationship Management
The Design of Customer Satisfaction Analysis Model Based on Hierarchical Fuzzy System ................................484
   Huiyu Cao, Bin Liu, and Jianmin He
Price Decisions for Used-Products Considering Its Impact on New-Product-Demand ................................489
   Qiaolun Gu and Tiegang Gao
Impact of Consumer's Life-Level on R/M Integrated Supply Chain Management ...................................493
   Qiaolun Gu and Tiegang Gao
A Study on the Relationship between Native and Customers' Information of the Enterprise ....................497
   Yuan Yongke and Wang Wei
   Zhang Sheng, Zheng Gang, Chang Qing, Wang Yan, and Li Pingping

Business Decision Making
A Comparative Study of Centralized and Decentralized Decision Making on Flexibility Investment ............505
   Husong Ding and Zhongsheng Hua
The Pareto-Frontier Solution to the MultiProject & Multiple Item Stochastic Chance-Constrained Investment Combination .................................................................510
   Jing Yu, Bin Xu, and Yong Shi
The Road to Decision-Centric Business Intelligence ............................................................................514
   Xue Feng, Gregory Richards, and Bijan Raheemi
Decision Support Model and Simulation for Knowledge Transfer in Innovation Networks ...............................................................519

Deming Zeng and Chuanrong Wu

Risk Control for Cost Uncertainty in Dynamic Oligopolistic Competition .................................................................524

Wang Ming, K. K. Lai, and L. Liang

The Determinants of Passenger Load Factor for Chinese Airline Industry .............................................................529

Yun Wang, Hongbing Ouyang, and Zongcheng Zhang

An Integrated Model for a Single-Manufacturer Multi-retailer Supply Chain with Poisson Demand ......................................................534

Kewen Pan, Kin Keung Lai, and Liang Liang

Hypothetical Queries on Multidimensional Dataset ........................................................................................................539

Guoliang Zhou, Hong Chen, and Yansong Zhang

Real Estate Investment Decision-Making Based on Analytic Network Process ............................................................544

Daizhong Tang and Lihua Li

A Balanced Performance Measurement Scorecard Approach for Product Service Systems ..........................................................548

Jian-hua Yang

Personal Life-Cycle Financial Planning Decision Model ......................................................................................................552

Quan Sun and Hao Cao

Reliability and Sensitivity Analysis of Extension Group Decision-Making ........................................................................556

Jiajun Zhu, Jianguo Zheng, and Jinbin Li

Algorithm and Application of a Kind of Quadratic Integer Programming Model ........................................................................561

Zhufang Wang and Yingjie Liu

**E-Business/E-Commerce**

Computational Modeling Methods in e-Business and Strategic Banking Management: The Case of e-Banking Sector .............................................................566

Alexandra Lipitakis

A Utility-Based Recommendation Approach for E-Commerce Websites Based on Bayesian Networks ........................................................................................................571

Ming Yi and Weihua Deng

Blue Arrow: A Web-Based Spatially-Enabled Decision Support System for Emergency Evacuation Planning ..................................................................................................................575

Anhong Ling, Xiang Li, Wenjuan Fan, Ning An, Jian Zhan, Lian Li, and Yongzhong Sha

Credit Risk and Policy of Digital Content Production Online Trading ..................................................................................579

Chengxiong Zhou, Lanxiang Zhao, and Zhuojun Liu

Cooperative Advertising in a Dual Channel ........................................................................................................................583

Wenxing Wang

Trust Study of E-Commerce in China Based on B2C Model ..........................................................................................587

Lihua Tao and Longyi Li

An Intelligent Recommendation Method of E-Commerce Based on Ontology ..................................................................................592

Yong Feng, Hongyan Xu, and Xin Fang
An Analysis on Green Supply Chain Management in E-Commerce under the Economic Globalization ..............................................................595

Yu Bin and Hu Jun

The Cooperation Method of Product Quality Control Based on Holonic Structure for Extended Enterprises ................................................600

Linghong Lai

A Game Analysis of the Relationship among Government, Mobile Operator and Finance Organization in China Mobile Payment Industry Chain ...........................................................................604

Haiying Ou, Tingjie Lv, and Xia Chen

Management Innovation Strategies in E-commerce Era .........................................................................................................................608

Bing Guan

Credit Asymmetry of Buyers and Sellers in E-Commerce .......................................................................................................................612

Hui Peng and Pei Tang

Applications to Business Intelligence

Supply Planning for a Closed Loop Supply Chain with Uncertain Demand and Price-Dependent Stochastic Return ........................................616

Jianmai Shi, Guoqing Zhang, and Kin Keung Lai

Is International Oil Price Chaotic? - Empirical Evidence from Spot Market ..........................................................................................621

Lin Zhao, Zhen Wang, and Chuanying Chen

Building Consumer Trust in Food Suppliers: The Case of Dairy Processors in China .........................................................................................625

Weizhong Hu and Yu Qi

Forecasting of Customs Export Based on Gray Theory .......................................................................................................................630

Zhang Dabin, Zhu Hou, and Zhang Jingguang

Marketing Intelligence on Customer Experiential Values: An Structural Equation Model Approach ..........................................................634

Fang Zhou and Kin Keung Lai

Some Bounds of Outstanding Claims Reserve Distribution by NBUE ..........................................................................................639

Yan Liu and Guangjun Zai

Management Appraisal of the City Bus System Based on Unascertained Measure ..................................................................................643

Tao Wang and Xuyan Wu

A Method of Gear Fault Detection Based on Wavelet Transform .........................................................................................................648

Xiangyu Zhao

Visual Analysis of Customer Data in Commercial Banks ...................................................................................................................652

Kan Liu and Ping Liu

Transfer Knowledge via Relational K-Means Method ..........................................................................................................................656

Peng Zhang, Lingling Zhang, Guangli Nie, Yuejin Zhang, and Yong Shi

Four Kinds of Trigonometric Spline Curves with Shape Parameter ......................................................................................................660

Jiongfeng Liang and Lanlan Yan
Research on Modeling Framework of the Interactive Artificial Stock Market and the Main Structure Model ...................................................................................................................664
She Zhenyu and Hou Jie

**Asset Pricing Theory**

Pricing Convertible Bond with Call Clause in Exponential Variance Gamma Model ........................................................................................................................................668
Jinpeng Yu, Xiaofeng Yang, Shenghong Li, and Xiaohu Yang

A Tree Model for Pricing Convertible Bonds with Equity, Market and Default Risk ........................................................................................................................................673
Ruxing Xu and Shenghong Li

Loan Pricing of City Commercial Banks for Small Enterprises Based on Relationship-Lending .................................................................................................................678
Hong Huang

Lunar Phases Effect in Chinese Stock Returns ........................................................................................................................682
Qinghui Gao

The Contribution Quantity of Credit Enhancement of Financial Instruments with Asset-Backed Securitization Structure ..................................................................................................................686
Dedong Zhang, Li Zhang, and Yuantao Song

Empirical Test of Size Effect in China Stock Market ........................................................................................................................691
Shaoni Zhou and Jie Zhang

**Game Theory**

Game Analysis of Cooperative Pollution Control of River Basin ..........................................................................................................................695
Yujie Tao and Yan Wang

Restricted Shares Reducing, Market Reaction and the Optimum Strategy ..........................................................................................................................699
Jianhuan Huang and Rui Su

Game Analysis of China Central Bank’s Adjustment of Interest Rates ........................................................................................................................704
Yu Shang and Hui Wang

Banzhaf Value for Games with Restriction ........................................................................................................................709
Yan Wang and Xiaohua Bi

Research on Supply Chain Coordination under the Price-Sensitivity of Demand .............................................................................................................714
Cheng-dong Shi and Dun-xin Bian

R&D Strategy and Cournot Competition with Labor-Managed and Profit-Maximizing Firms ..........................................................................................................................718
Jianli Luo and Weijun Zhong

Perspectives on the Enterprise Competitive Intelligence as Well as the Win-Win Cooperation in the Price War Based on the Analysis of the Prisoner’s Dilemma .............................................................................................................722
JingYu Pan
A Game Analysis of the Mergers and Acquisitions of Foreign Capital Based on the Perspective of Industry Security ................................................................. 726
  Jianjiang Liu, Junfeng Yang, and Xizhen Yang

Futures/Swap/Insurance Pricing and Trading Strategy
The Relationship between Prices of Domestic and Foreign Futures Market ................................................................. 731
  Qizhi He
Modeling of Variance Swap and Improved Control Variate for Monte Carlo Method ................................................................. 735
  Junmei Ma and Chenglong Xu
Pricing Model for Earthquake CAT Bonds ................................................................. 740
  Zhengru Tao, Xiaxin Tao, and Ping Li
Learning Process of Uninformed Traders and Information Efficiency ................................................................. 745
  Mianbi Xie
The Probability of Informed Trading Based on VAR Model ................................................................. 750
  Min Xu and Shancun Liu

Credit Evaluation and Interest/Exchange Rate Determination
Referral Limit Policy for the Credit Authorization Process ................................................................. 754
  Kin Keung Lai and Bing Lin
Study on Commercial Bank Credit Risk Based on Information Asymmetry ................................................................. 758
  Chenghua Shi and Kui Zhang
A Copula Method for Correlation of Credit Rating Migration ................................................................. 762
  Xiaosi Xu, Ying Chen, and Jun Zheng
On Consumer Credit Scoring Based on Multi-criteria Fuzzy Logic ................................................................. 765
  Chen Xinhui and Qiao Zhong
Empirical Study of Nonparametric Model of Interest Rate Term Structure Based on Different Kernel Functions ................................................................. 769
  Rong-xi Zhou, Cheng Gu, and Yong-yu Yang
  Yanli Li

Corporate Governance Theory
The Composition of Shares and Corporate Performance: Evidence from Shenzhen Stock Market ................................................................. 777
  Mengyi Liu
The Relationship between Corporate Governance and Corporate Performance in China's Civilian-Owned Listed Enterprise ................................................................. 782
  Bo Zhang and Tian Lei
Applications to Financial Engineering

Empirical Analysis of GARCH Effect for Mixed Jump of Shanghai Security Index .................................................................................................................. 794

Xiaofeng Zhang and Jun Du

The Future Development of Credit Derivatives in China from the View of Financial Crisis .................................................................................................................. 799

Leiyu Kang

Market Reaction of the Restricted Shares Reducing: Mechanism and Features ........................................................... 803

Zhujia Yin and Jianhuan Huang

Market Reaction to Consideration in Nontradable Share Reform ...................................................................................... 808

Fei Chen

Do Mutual Funds Deliver Alpha? A Bayesian and Bootstrap Analysis .................................................................................. 812

Ning Xu and Zhi-xin Liu

A Structure Analysis and Trend Prediction of the Population Development in China .................................................................................................................. 817

Guizhi Wang, Jie Li, Jiacai Sun, and Xiaorong Huang

The DEA Operational Efficiency Evaluation of Credit Guarantee Institutions ........................................................................ 822

Xiaoling Cui and Tianli Zhong

The Impact of Reduced Holding Behavior Information of the Restricted Stock on Market Volatility—Based on the Shenzhen Stock Market .................................................................................. 826

Ling Feng and Shanxia Xie

Dynamic Linkages between Stock Market Volatility and Macroeconomic Variables: Empirical Evidence Based on China .................................................................................. 831

Zhaoxu Chen and Jun Xu

The Effect of Internal Cash Flow on the Investment of Chinese Listed Companies .................................................................................................................. 836

Zhi Wang

Financing Mode of Restoration and Preservation of China’s Groundwater ........................................................................ 841

Ling Wang and Xuesong Jiang

Financial Development and Economic Growth in Central Region of China: An Empirical Analysis .................................................................................................................. 845

Yaoling Wen

A Decomposition of Total Factor Productivity Growth in China’s Steel Industry: A Stochastic Frontier Approach .................................................................................. 849

Wanghui Liu and Bing Huang

Hotel Revenue Management Theories and Applications .................................................................................................................. 853

Wei Wei and Hoffer Lee
Bank M&A Efficiency under the Condition of Economic Globalization .....................................................857
   Ruibo Liu and Ran Ma
Study on VaR Forecasts Based on Realized Range-Based Volatility ..........................................................860
   Guo Mingyuan and Zhang Shiying

Author Index