# Table of Contents

**Preface** ................................................................................................................................. xvi

**Organizing Committee** .......................................................................................................... xviii

**Program Committee** ............................................................................................................. xix

**Reviewers** ............................................................................................................................. xxii

## Artificial Neural Networks

A Fuzzy Group Forecasting Model Based on BPNN for Wind Power Output .............................. 1  
*Qian Zhang, Kin Keung Lai, Dongxiao Niu, and Qiang Wang*

Reliability Analysis of Multi-Stress Accelerated Life Test Based on BP Neural Network  
*Xiaoying Wang and Jihong Shen* ................................................................................................. 6

A Triple Artificial Neural Network Model Based on Case Based Reasoning for Credit Risk Assessment  
*Qiang Wang, Kin Keung Lai, Dongxiao Niu, and Qian Zhang* .......................................................... 10

## Ensemble Learning and Hybrid Learning

Improving Financial Returns Using Neural Networks and Adaptive Particle Swarm Optimization  
*Yi Xiao, Ming Xiao, and Fuzhe Zhao* ............................................................................................. 15

An Ensemble of Fuzzy Sets and Least Squares Support Vector Machines Approach to Consumer Credit Risk Assessment  
*Jingli Liu, Jianqi Mao, and Lei Chen* ........................................................................................... 20

Personal Credit Assessment Based on KPCA and SVM  
*Jing Wang, Yongsheng Zhou, Xinjian Du, and Mingke He* .............................................................. 25

Crude Oil Price Forecasting: A Transfer Learning Based Analog Complexing Model  
*Jin Xiao, Changzheng He, and Shouyang Wang* ........................................................................ 29
# Data Mining and Text Mining

A Three-stage Data Mining Model for Reject Inference .................................................................34  
*Weimin Chen, Youjin Liu, Guocheng Xiang, Yongqing Liu, and Kexi Wang*

Case Study of Performance Management for PPP Projects ..........................................................39  
*Deli Yao and Qiang Chen*

A New Method of Computing Chinese Word Similarity Based on Statistics .................................43  
*Bo Zhang, Lei Hong, Shubin Song, Liang He, and Guorong Li*

# E-Business and BI

Regional Logistics Information Resources Integrate and Share ....................................................47  
*Hui Wu*

Envelopment-competition Pattern of E-Business Platform — Insights from the Competition among Taobao, Baidu and Tencent .................................................................51  
*Yinying Zhang and Wenqi Duan*

An Empirical Study of the Influence Factor of Tourism E-Commerce Purchase ................................56  
*Bo Jiang*

Evolution Model and Critical Mass of E-business Platform Based on Complex Networks ................60  
*Ou Huang and Wenqi Duan*

Maximization of Online Display Advertising Slots ....................................................................65  
*Haiying Ou*

# Collaborative Filtering and Collaborative BI

Collaborative Filtering Recommendation Algorithm Based on Item Clustering and Global Similarity .................................................................................................................................69  
*Suyun Wei, Ning Ye, Shuo Zhang, Xia Huang, and Jian Zhu*

Competitive Pricing Strategy Based on Consumer Stockpiling and Consumption Acceleration Behaviors .......................................................................................................................73  
*Zheng Cui, Yanyan Li, Yongsheng Zhou, and Haoxiong Yang*

A Collaborative Filtering Algorithm Based on User Activity Level ................................................80  
*Yongli Cui, Shubin Song, Liang He, and Guorong Li*

Construction of Ontologies by Using Concept Maps: A Study Case of Business Intelligence for the Federal Property Department ................................................................................................84  
*Ararigleno Almeida Fernandes, Lucas Costa Amaro, João Paulo Carvalho Lustosa Da Costa, Antonio Manuel Rubio Serrano, Valério Aymoré Martins, and Rafael Timóteo De Sousa Júnior*

Simulation of the Incentive Mechanism for Knowledge Sharing between Employees Based on the Organization Design ....................................................................................................89  
*Dabin Zhang, Ying Sun, and Zhenlei Zhong*
Supply Chain Integration through BI

Design on Enterprise Knowledge Supply Chain Based on Cloud Computing ................................................................. 93
Qian Li, Xuan Zhang, and Ming Chen

Channel Bargaining with Fairness-concerned Agents under Power-form Demand ........................................................... 98
Lijun Ma and Yingxue Zhao

Revenue Sharing Contract Based on Supply Chain Finance .................................................................................................. 103
Chaoliang Zhang and Yong Fang

New Operational Mode of R/M Integrated Supply Chain Based on IoT .............................................................................. 108
Gu Qiaolun and Gao Tiegang

Public or Private? An Analysis of Supply Chain Choice of E-Markets .............................................................................. 113
Jian Li, Jie Pei, Fengmei Yang, and Yakun Wang

Replenishment Cycle Optimization of JIT Manufactory ......................................................................................................... 118
Jianjun Yu

Performance and Profits Sharing between Two-level Building Supply Chain ........................................................................ 122
Suxian Zhang and Xiaosong Zhang

Asset Pricing and Management

Pricing Analysis on Internet Paid Sharing of Digital Products .................................................................................................. 126
Chengxiong Zhou, Guoxin Nie, Peinan Li, and Lanxiang Zhao

System Dynamic Model of Housing Price Fluctuations Based on the Impact of Real Estate Tax Institution and Trading Behavior .................................................................................................................. 130
Shao-rong Sun and Si-rong Ren

Behavioral Asset Pricing Model Based on Regret Theory ....................................................................................................... 135
Sheng Jiliang

A Copula-based Regime-switching Model for Rainbow Option Pricing ....................................................................................... 140
Ping Li and Yin Libo

Asset Allocation under Regime-Switching Models ..................................................................................................................... 144
Na Song, Wai-Ki Ching, Dong-Mei Zhu, and Tak-Kuen Siu

Option Sensitivity Simulation by Malliavin Calculus and Quasi-Monte Carlo Methods .......................................................... 149
Yongjia Xu, Yongzeng Lai, and Yan Zeng

A New FA-DEA Method Based on Classification and Weighting ................................................................................................. 154
Jianhuan Huang and Juanjuan Chen

A Pricing Model for Convertible Bonds in China ......................................................................................................................... 159
Huiyan Dong and Kun Guo

Research on the Pricing of Convertible Bonds Based on Completely Disassembled Method ...................................................... 164
Zhang Dai-Jun, Dong Dian-Hua, Zou Qun-Si, and Shi Zhen-Hai
The Comparison of Beta Distribution Estimation and Gauss Kernel Density Estimation in the Recovery Rates of Municipal Bonds ................................................................. 168
   Rongda Chen and Ze Wang

An Exploration on Cross Hedging Method of Chinese Steel Enterprises for Spot Iron Ore and Enlightenments .................................................................................. 172
   Han Qiao, Yingming Mao, Xiang Liu, and Yingxue Zhao

Generating Profit Using Option Selling Strategies .................................................................................. 177
   Stanley Choi, Dong Gang, and Kin Keung Lai

Optimal Hedging with Quantity Uncertainty and Agency Problem .................................................. 181
   Jianfeng Liang and Weiping Yang

Financial Risk Management

EVT-based Risk Measurement of Ownership-Thematic Investment in China ............................................ 186
   Xuchao Li and Chengli Zheng

Credit Risk Evaluation by Improved MCDM Models ............................................................................. 191
   Wenshuai Wu, Gang Kou, and Yi Peng

Customer Credit Risk Assessment of Pledge by Warehouse Receipts in a Chinese Logistics Enterprise .................................................................................. 196
   Li Cui, Yong Sheng Zhou, Mingke He, Hao Zhang, and Shu Pang

The Macro Regulation and Control of Financial Policy under the Currency Mismatch Condition ................................................................. 200
   Zhongzhao Wang, Dichen Guan, and Yonghao Zhang

The Strategy of the Operational Risk Management: Connotations of it in Commercial Banks of China .................................................................................. 205
   Shaoqiang Qu and Yuzhong Zhang

Study on Cumulative Residual Entropy and Variance as Risk Measure ............................................. 210
   Lijuan Yang

Measurement and Analysis on the Risk of China Stock Market under Different Economic Systems .................................................................................. 214
   Jianhui Yang and Ranxin Zhang

Comprehensive Measure and Influential Factors of Fragility of Commercial Bank System in China .................................................................................. 219
   Xiaofeng Zhang and Lan Yao

The Time-varying Risk Premium Coefficient and the Conditional Skewness ........................................ 224
   Fenghua Wen, Jinli Xiao, Zhifeng Liu, Zhifeng Dai, and Xiaoguang Yang

The Long-run IPO Performance, Frequency of Cash Dividend and Signal Effect: Evidences from China .................................................................................. 229
   Xiangzhong Huang

The Spillover Effects of the European Government Debt Crisis on Chinese Economy .......................... 233
   Lin Zhao and Shanying Xu

viii
A Study of the Cost Control Problem in Refrigerator Product Design Stage ............................................................238
  Qingmin Yu

Farmer’s Credit Decision Model based on Risk Guarantee Fund .................................................................242
  Sulin Pang

Realization of Corporate Social Responsibility in Natural Disasters Emergency Management .................................................................247
  Fei Chen, Qingli Da, and Yulin Deng

IPO’s Contagion Effect and Competition Effect ................................................................................252
  Chao Liang and Ruyan Yang

**Financial Derivatives Trading**

Price Discovery in Index Futures Market - Based on Common Factor Models .................................................................257
  Zhou Zhou, Zhuo Wei, and Shouyang Wang

Effects of Warrants Trading Activity on Firm Valuation: Evidence from Chinese Securities Market ..................................................................................262
  Yucan Liu and Xiaomin Gu

The Research of Building the Infrastructure of Accounting Based on Social Capital Management Insight ..................................................................................267
  Jianfen Mao and Cun Han

The Volatility of Stock Return in GEM Broad ................................................................................272
  Fang Fang and Rongda Chen

**Business Intelligence with Case-Based Computing**

A Jump-diffusion Approach to Modelling Software Security Investment .................................................................274
  JiaXiang Zheng, Jun Wan, YunFei Ren, and Hongyu Guo

Valuing Information Security Investment: A Real Options Approach ..................................................................................279
  Jun Wan, Bin Ding, YunFei Ren, JiaXiang Zheng, and HongYu Guo

Application of Grey Dynamic Programming Model for Optimizing Regional Industrial Structure ..................................................................................285
  Pei Ling-ling and Wang Zheng-xin

  Shengping Yang and Lei Zhang

Measuring Gross Domestic Product of Sport Events in China: Development of Two Methodological Strategies ..................................................................................293
  Shengnan Sun and Huping Cong

Identifying Chinese Hospitality Firm Failures and Differences from Results on Developed Countries: Significant Variables and Predictive Models ..................................................................................297
  Hui Li and Hai-Bin Huang
Risk Correlation Analysis and Risk Measurement

The Cross-section of Expected Stock Returns: Evidence from Chinese A-share Market ...........................................303
Haizhen Yang, Chuzhao Wang, and Yanping Zhao

A Social Network Approach to Software Development Risk Correlation Analysis ..................................................308
Hao Song and Chen Cai

Dynamic Behavior of Country Risk in the BRICS Countries: From the Perspective of Time-varying Correlation .....................................................................................................................313
Yuying Yang, Xiaolei Sun, Xiaoqian Zhu, Jianping Li, and Dengsheng Wu

Risk Analysis on Program Trading: An Agent-based Computational Finance Perspective .......................................................318
Xiong Xiong, Hailiang Yuan, Wei Zhang, and Yongjie Zhang

Mutual Information Based Copulas to Aggregate Banking Risks ..........................................................................................323
Shanli Yi, Jianping Li, Xiaoqian Zhu, and Jichuang Feng

Financial Practices and Applications

Selection of Pledge in the Logistics Finance Service ...........................................................................................................328
Xinjian Du, Haoxiong Yang, Yazhen Tian, Yongsheng Zhou, and Yi Pang

Steel Products’ Pledging Rate Based on Value-at-Risk Model .............................................................................................332
Haoxiong Yang, Yanan Fang, Jingjie Zhou, and Yongsheng Zhou

The Influence of Investor Sentiment on Stock Return and its Volatility under Different Market States ..........................................................337
Huiwen Zou and Lei Sun

Capital Structure Influence Factors Research of Regional Listed Companies - On the Basis of Comparison of Zhejiang and Liaoning Province ..............................................................342
Zhang Daijun, Zhao Liwen, and Bao Weiwei

The Relationship between Ownership Structure and Performance of the Private Listed Companies in China ..........................................................................................................................347
Xiaochun Yan

Influencing Factors of CFO Compensation of Listed Companies: Evidence from China Listed Companies ..........................................................352
Yu Wang and Chen Wenmin

Moral Hazard and Corporate Governance .......................................................................................................................357
Changcai Qin

Analysis on China Business Cycle: A DSGE Approach .....................................................................................................360
Hu Yinghuan

An Empirical Analysis of Earnings Management During the IPO Process: The Evidence from Manufacturing SMEs in China .....................................................................................................365
Jiameng Lin and Jiming Li
Valuation of Restricted Shares: Evidence from the Split Share Structure Reform in China
.......................................................................................................................................................................370

Jinlou Zhao, Yifei Cheng, and Lanlan Liu

An Inquiry into Volatility of Stock Returns in China A-Share Market .................................................................374

Jilin Zhang

Exploring the Mechanism Innovation in Investment and Financing of the Coastal Shoal Development in Jiangsu Province ............................................................................................................................................................................................379

Keren Zhao and Min Zhao

The Style and Structure of Chinese Stock Market in 2005–2010: Based on Symbolic Principal Component Analysis ........................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................385

Wen Long and Dingmu Cao

The Effect of Disposition Effect on Stock Price Volatility ....................................................................................................390

Fenghua Wen, Zhifang He, Zhifeng Dai, and Xu Gong

DCC Analysis of Two Exchange Rate Market Returns Volatility with a Factor of Switzerland Exchange Rate Market: Study of Japan and Korea Markets ........................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................394

Wann-Jyi Horng

CSI 300 Stock Index Futures to Launch an Empirical Research on A-Share of the Spot Market Pricing Efficiency and Operating Efficiency Influence ........................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................399

Zhang Dai-Jun, Chen Wei, and Hou Meng-Na

Efficiency Test in Chinese Plastic Futures Market ........................................................................................................404

Rongda Chen, Weijin Wang, and Wenlong Li

Computational Business Science

Supply Chain Knowledge Sharing Preference Space Model Construction and Analysis of Influencing Factors ........................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................408

Xiaofeng An, Xumei Zhang, and Guangfu Zhu

The Design of Incentive Mechanisms for the Interregional Public Goods under Asymmetric Information ........................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................411

Hong Su and Jing Tang

Modeling Government Role on the Innovation Diffusion of Infra-Technologies ........................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................416

Ying Wu and Wen Li

Discussion on the Capitalization of Borrowing Costs ........................................................................................................421

Daosheng Wei and Kai Wei

The Relationship between Regional Intellectual Capital and Regional Innovation Competence: An Empirical Analysis Based on Chongqing City ........................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................425

Panyi Li, Junfei Li, and Jun Yin

Impact of Administrative Appointment on the Executive’s Management Capacity of Monopoly SOE ........................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................430

Yong Fang and Weina Bi
Analysis of the Strategic Direction of the Jingdong Mall ................................................................. 434
   Lifen Cheng

An Incentive Mechanism under Fairness Preference ........................................................................ 438
   Xinyi Guo

**Government Performance Evaluation**

The Attitude Analysis of Internet Users in the Event Involving PM2.5 Governance .......................... 443
   Yongzhong Sha, Yajie Liu, and Jingsong Yan

Performance Improvement Strategies of Public Programs in the Market Economy
Perspective .......................................................................................................................................... 446
   Xutao Zhang, Guoxing Zhang, and Sujie Cheng

Game Analysis of the Public Projects’ Stakeholders under the Social Responsibility
Perspective .......................................................................................................................................... 451
   Sujie Cheng and Guoxing Zhang

Customer Knowledge Network Based on Service Interaction: A Typology and Spiral
Model .............................................................................................................................................. 455
   Ruoyong Zhang, Dongliang Xu, and Yanhai Zhao

An Empirical Study of Organizational Learning’s Influences on Customer Knowledge
Acquirement Ability .......................................................................................................................... 460
   Zhiyuan Li, Dinghua Wang, and Xiao Ma

How Knowledge Management Process Influences Customer Knowledge Management
Performance: An Empirical Study Based on Balanced Score Card of Manager’s
Opinions ............................................................................................................................................. 465
   Yanhai Zhao, Zhiyuan Li, and Haizhen Wang

Household Energy Demand Evolutionary Trace: What Happened to the Fringe
of Xi’an City? ..................................................................................................................................... 470
   Qing Zhu, Yujing Guo, Shubin Wang, and Genfu Feng

Multi-factor Analysis of Terrorist Activities Based on Social Network ......................................... 476
   Julei Fu, Jian Chai, Duoyong Sun, and Shouyang Wang

A Quantitative Study on the Research Fronts of Electronic Government ...................................... 481
   Saiyan Cheng and Lei Ding

Designing China’s Local Government Performance Evaluation Indicators Based
on Data Mining: An Exploratory Study in Four Municipal Governments in Jiangsu ................... 486
   Shang Huping and Hui Chunhua

Influencing Factors of Public Satisfaction in Local Governments’ Overall Performance
Evaluation in China ............................................................................................................................. 495
   Fanghui Zheng and Yangfan Lu

How Value Identity of Civil Servants Influence on Effect of Government Performance
Assessment ......................................................................................................................................... 501
   Mei Lang
County Magistrate Leadership Behaviors and County Government Performance:  
Mediating Effect of Subordinate Trust ..............................................................506  
Jiazheng Ma

An Exploratory Study of Conference Performance Evaluation: Taking X-District  
Conference Management for Example ........................................................511  
Guochong Xu and Lisheng Yu

Promoting the Public Service Performance Evaluation: An Alternative View  
from Performance Culture Perspective .........................................................516  
Shaohui Li and Hong Ma

A Study on the Elements and Structure of Government Governance ................520  
Chunlong Huo and Yanhai Zhao

Design and Implementation of Logistics Vehicle Monitoring System Based on  
the SaaS Model .................................................................................................524  
Jian Zhan, Yongzhong Sha, and Jingsong Yan

.......................................................................................................................527  
Wensheng He, Lingling Liao, and Mingjun Cai

The Model of Data Replica Adjust to the Need Based on HDFS Cluster .................532  
Guangbin Bao, Chaojia Yu, and Hong Zhao

Relational Model of and its Appraisal on Environment Supporting Factors  
and Customer Knowledge Management Performance ..................................536  
Zhiyuan Li, Bo Wu, and Yueping Li

Study on the Management Models of Urban Multi-Ethnic Community in Northwestern  
Cities of China - The Case of Lanzhou ..........................................................540  
Fefei Shan and Yanhai Zhao

Project Management

Modular and Integrated Management of R&D Project in Dynamic Alliance ........545  
Guorong Chai, Lei Zhao, and Yana Su

Decision-making Model of Concession Price and Period for Traffic BOT Projects  
under Elastic Demand .....................................................................................550  
Jinbo Song, Xinxo Wang, Dongbo Wang, and Dashuang Dai

Multi-grade Fuzzy Comprehensive Evaluation of BOT Projects Service Quality Based  
on Fuzzy Entropy Weight Coefficient Method ...............................................556  
Jinbo Song, Yan Liu, and Danrong Song

Adverse Selection and Moral Hazard in Infrastructure Performance-Based  
Maintenance Contracts ....................................................................................561  
Shi Lei

Simulation Analysis of Criticality Indexes of Activities in GERT Networks .............567  
Shike Ren and Zhiping Yuan
Top Management Team Attention and International Market Entry Mode: Evidence from China .......................................................... 572
   Jianzu Wu and Bin Guan

The Subgroup Formation in Chinese Work Groups: An Investigation of Antecedents and Consequences ............................................................. 578
   Haizhen Wang

Relationship between Resource-Based Multinational Corporations and Host Country .............................................................. 583
   Yuan Yao and Jingru Jiao

The Social Responsibility of Resource-Based Multinational Corporations in the Host Country ................................................................. 588
   Jingru Jiao and Yuan Yao

Factors Involved and Countermeasures for Western Region to Undertake Eastern Industrial Transferring .......................................................... 593
   Liang Lei and Ailing Xia

Collaborative Sharing System of Accounting Information for Stakeholders Based on XBRL ........................................................................ 597
   Wei Liu

The Construction of County Public Expenditure Performance Evaluation System in China ........................................................................ 601
   Mei Li, Jing Li, and Ling Zhang

Design and Implementation of Web Course Evaluation Based on Cloud Model ...................................................................................... 605
   Jie Zhang, Chungui Liu, and Shaoying Zhu

Shock Models Driven by a Cluster Process with Lévy Perturbation and their Applications in Insurance Risk ........................................ 609
   Jianming Bai and Fanghui Liu

The Impact of Value Co-creation Capability on Cooperation Performance in Service Supply Chain with Trust as Mediator ........................................ 614
   Jinliang Chen

Creditors Screening on Logistics Company in Triple Inventory Pledge Loan ...................................................................................... 618
   Ping Yu

Models of Lifetime Human Capital Accumulation for Perfect and Imperfect Credit Markets ..................................................................... 622
   Chun Yuan, Lingyan Cao, and Weining Fu

Top Management Team Attention and International Strategy: A Case Study ...................................................................................... 625
   Jianzu Wu and Yusheng Bi
Innovation Management and Knowledge Networks

The Development of Emerging Strategic Industries - A Perspective View of Ecological and Civilizational Economy ................................................................. 629
    Ziming Zhu, FuLing Liao, and DongShen Luo

The Emergence of Knowledge Network in a Turbulent Problem-Solving Environment .................................................. 632
    Hua Zhang and Chungang Lang

The Knowledge-transfer Risk Evaluation Model of the Execution of ERP Project Based on AHP ................................................................. 636
    Dewei Qi and Zongqian Zhu

Management Innovation Capabilities Evaluation of Small and Medium-sized High-tech Enterprises in Shanghai ................................................................. 641
    Yong Ma and Shougui Luo

Model for Renegotiation in Infrastructure Projects with Government Guarantee .................................................. 646
    Li Gong and Jin Tian

A Study of University Students’ On-line Shopping Behavior Traits and Influencing Factors ................................................................. 649
    Lutong Zhang, Zhiyuan Li, and Beteyev Azamat

Author Index ........................................................................................................................................................... 653