

1. Record Nr.	UNINA9910735587903321
Autore	Zheng Zhiyong
Titolo	Proceedings of the Second International Forum on Financial Mathematics and Financial Technology [[electronic resource] /] / edited by Zhiyong Zheng
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2023
ISBN	981-9923-66-2
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (242 pages)
Collana	Financial Mathematics and Fintech, , 2662-7175
Disciplina	332
Soggetti	Finance Financial engineering Social sciences—Mathematics Financial Economics Financial Technology and Innovation Mathematics in Business, Economics and Finance
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Intro -- Preface -- Contents -- On the Development of Fintech in Asia -- 1 Overview of Global Fintech Development -- 1.1 Development Dynamics -- 1.2 The Financing Profile -- 1.3 Regulatory Environment -- 1.4 The Models of Fintech Development -- 1.5 Spatial Layout -- 2 Practice of Fintech Development in Asia -- 2.1 China-The Fintech Has Been Promoted to the Worlds Leading Level -- 2.2 Japan-Boosting the Rapid Growth of Fintech Through Advantages of Backwardness -- 2.3 Singapore-Gathering Innovative Resources with a Relaxed and Inclusive Atmosphere -- 2.4 South Korea-Promoting Scale Development of Fintech Industry by Fanning Out From Point to Area -- 2.5 KazakhstanCDigital Transformation Speeds Up the Construction of Central Asian Fintech Hub -- 2.6 India-Potential for Fintech Development Has Been Gradually Exerted -- 2.7 Israel-Guidance Plus Service to Create a Highland for the Development of Fintech -- 2.8 Indonesia-A Rising Star of Fintech Development in Southeast Asia -- 2.9 Hong Kong of China-The Government Assists the Strong Development of Fintech -- A Probability Inequality with Application to

Lattice Theory -- 1 Introduction -- 2 Main Results -- 3 Conclusions --
References -- Robust Identification of Gene-Environment Interactions
Under High-Dimensional Accelerated Failure Time Models -- 1
Introduction -- 2 Methods -- 2.1 Data and Model Settings -- 2.2
Robust Estimation and Identification -- 2.3 Computation -- 2.4
Consistency Properties -- 3 Simulations -- 4 Analysis of the TCGA
Lung Adenocarcinoma Data -- 5 Discussions -- References -- A Novel
Approach for Improving Accuracy for Distributed Storage Networks -- 1
Introduction -- 2 Related Works -- 2.1 Audit Research -- 2.2
Distributed Storage Project -- 3 Audit Algorithm -- 3.1 An Audit
Framework -- 3.2 Data Uploading -- 3.3 Self-integrity Verification.
3.4 Data Owner's Integrity Verification -- 3.5 The Game of Miners
Versus Storage Networks -- 4 Fault-Tolerance Verification -- 5
Concluding Remarks -- References -- Iterative Learning Control Based
on Random Variance Reduction Gradient Method -- 1 Introduction --
1.1 Background -- 1.2 Design and Analysis of SVRG-Based ILC -- 1.3
Main Work and Organization -- 2 SVRG-Based ILC Framework -- 2.1
System Description -- 2.2 Algorithm Design -- 2.3 Convergence
Analysis -- 3 SVRG-Based ILC Under Random Data Dropouts -- 3.1
System Description -- 3.2 Algorithm Design -- 3.3 Convergence
Analysis -- 3.4 Numerical Simulation -- 4 Model-Free SVRG-Based ILC
for MIMO Systems -- 4.1 System Description -- 4.2 Algorithm Design
-- 4.3 Convergence Analysis -- 4.4 Numerical Simulation -- 5
Conclusions -- References -- A Generalization of NTRUEncrypt -- 1 -
Cyclic Code -- 2 A Generalization of NTRUEncrypt -- References --
Cyclic Lattices, Ideal Lattices, and Bounds for the Smoothing Parameter
-- 1 Discrete Subgroup in \mathbb{R}^n -- 2 Ideal Matrices -- 3 Cyclic
Lattices and Ideal Lattices -- 4 Smoothing Parameter -- References --
On the LWE Cryptosystem with More General Disturbance -- 1
Introduction -- 1.1 Innovation and Contribution -- 2 Methodology --
2.1 Preliminary Property -- 2.2 Probability of Decryption Error Based on
Gaussian Disturbance -- 2.3 Probability of Decryption Error for General
Disturbance -- 3 Results and Conclusions -- 4 Discussions -- 4.1
Future Work -- References -- On the High Dimensional RSA Algorithm-
A Public Key Cryptosystem Based on Lattice and Algebraic Number
Theory -- 1 Introduction -- 2 Ideal Matrices -- 3 High Dimensional
RSA -- 4 Security and Example -- References -- Central Bank Digital
Currency Cross-Border Payment Model Based on Blockchain
Technology -- 1 Introduction -- 2 CBDC Cross-Border Payment
Development Current Situation.
3 Polkadot Technology Overview -- 3.1 Relay Chain and Parachain
Technology -- 3.2 Polkadot Cross-Chain Technology -- 4 CBDC Cross-
Border Payment Model -- 4.1 Design of Parachain -- 4.2 Design of
Relay chain -- 4.3 Cross-Chain Transaction -- 4.4 Privacy Protection --
5 CBDC Cross-Border Payment Model Architecture -- 6 Summary and
Prospect -- References -- LLE Based K-Nearest Neighbor Smoothing
for scRNA-Seq Data Imputation -- 1 Introduction -- 2 Materials and
Methods -- 2.1 The K-Nearest Neighbor Smoothing Algorithm -- 2.2
Locally Linear Embedding -- 3 Results -- 3.1 Availability of Data -- 3.2
Data Processing and Visualization -- 3.3 Performance Evaluation -- 4
Conclusions -- References -- The Application of Time Series Analysis
in the Fiscal Budget Variance of China -- 1 Introduction -- 2 A General
View on Budget Data -- 2.1 Introduction to Concept and Data Source
-- 2.2 Descriptive Analysis of Budget Variance -- 2.3 Descriptive
Analysis of Budget Execution -- 3 Overview of Time Series Analysis
Techniques -- 3.1 Decomposition of Time Series -- 3.2 ARIMA (p,d,q)
-- 3.3 SARIMA (p,d,q) (P,D,Q)s -- 4 Modeling of Budget Variance -- 4.1
Prediction of Budget Execution -- 4.2 Prediction of Budget Variance --

This open access book is the documentary of the Second International Forum on Financial Mathematics and Financial Technology, with focus on selected aspects of the current and upcoming trends in FinTech. In detail, the included scientific papers cover financial mathematics and FinTech, presenting the innovative mathematical models and state-of-the-art technologies such as deep learning, with the aim to improve the financial analysis and decision-making and enhance the quality of financial services and risk control. The variety of the papers delivers added value for both scholars and practitioners where they will find perfect integration of elegant mathematical models and up-to-date data mining technologies in financial market analysis. Due to COVID-19, the conference was held virtually on August 13–15, 2021, jointly held by the School of Mathematics of Renmin University of China, the Engineering Research Center of Financial Computing and Digital Engineering of Ministry of Education, the Statistics and Big Data Research Institute of Renmin University of China, the Blockchain Research Institute of Renmin University of China, the Zhongguancun Internet Finance Research Institute, and the Renmin University Press.