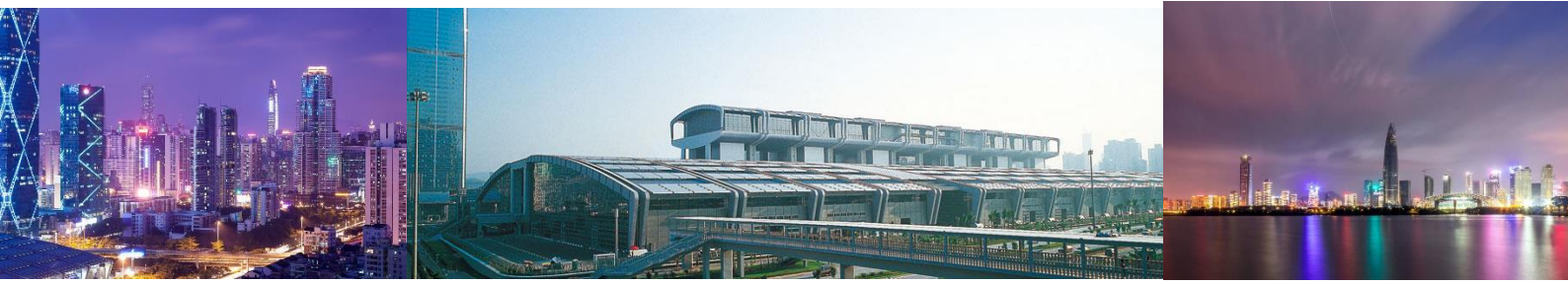


IEEE CIFEr 2019

IEEE Conference on Computational Intelligence for Financial Engineering and Economics

May 4-5 2019, SUSTech Library, Shenzhen, China

Power Financial Industries with AI Advances from Academia

IEEE CIFEr, Computational Intelligence for Financial Engineering and Economics is the major collaboration between the professional engineering and financial communities, and is one of the leading forums for new technologies and applications in the intersection of computational intelligence and financial engineering and economics with a history starting from 1990s.

This Conference will focus on AI and Big Data Technologies and Financial Engineering & Economics.

Contact： ieeecifer2019@easychair.org
Website: http://www.ieee-cifer.org

General Co-Chairs
Prof. Hisao Ishibuchi, Southern University of Science and Technology

Prof. Dongbin Zhao, Institute of Automation， Chinese Academy of Sciences

Keynote Speech 1:

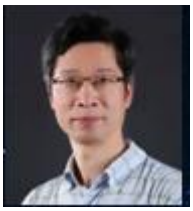
Speaker: Prof. Lei Xu
Title: Market modelling and adaptive portfolio: from linear models and mixtures to GAN and alphaGo type deep learning
Bio: Chair Professor of Computer Science and Engineering, both Shanghai Jiao Tong University (SJTU) and Chinese University of Hong Kong (CUHK); Chief Scientist, SJTU Artificial Intelligence Research Institute; Director, Centre for Cognitive Machines and Computational Health (CMaCH);
Received several national and international academic awards, including 1993 National Nature Science Award, 1995 Leadership Award from International Neural Networks Society (INNS) and 2006 APNNA Outstanding Achievement Award. Elected to Fellow of IEEE in 2001; Fellow of intl. Association for Pattern Recognition in 2002 and of European Academy of Sciences in 2003. Served as the EIC of Springer-Nature OA J. Applied Informatics, and associate editors of several academic journals, e.g., including Neural Networks (1995-2016), IEEE Tr. Neural Networks (1994-98). Taken various roles in academic societies, e.g., INNS Governing Board (2001-03), the INNS award committee (2002-03), and the Fellow committee of IEEE Computational Intelligence society (2006-07). General Chair of CIFEr2003) ; Chair, Computational Finance Technical Committee, IEEE Neural Networks Society (2001-2003) ; Program Committee Member, Computational Finance 1997, London Business School.

Keynote Speech 2:

Speaker: Jeff Nie
Title: Options, hedge Funds and FOHF
Bio: Mr. Jeff Nie started his career in fund of hedge funds (FOHF) at Goldman Sachs Hedge Fund Strategies Group (formerly Commodities Corp.) in early 1998. He was one of the earliest Chinese worked in the FOHF space. He served as the Head of Risk Management & Quantitative Analysis at Merrill Lynch Alternative Strategies Group. He also served at the largest FOHF company in Asia, SAIL Advisors, as Board Member, core member of the Investment Committee, Managing Director, and Chief Risk Officer. In addition, he held various senior management roles at different asset management firms based in Hong Kong. He has seasoned first-hand experience in investing global hedge funds as well as Asia-focused hedge funds and he helped to manage multi-billion dollars AUM. Mr. Nie is a senior financial engineer and has been trading options for over 20 years. He authored the book Decrypt Fund of Hedge Funds and is a frequent keynote speaker on various large hedge fund conferences as well as derivative forums. Mr. Nie was the founding Chairman and is a Co-Chairman of Absolute Return Investment Management Association of China. He also serves as a Vice-Chairman of China Private Equity Investment Industry Association; a Vice-Chairman of Overseas Chinese Asset Management Association; Advisor of CHFRC of SAIF; Chief Investment Advisor of Hengqin New District Financial Service Office; Guest professor of a few top universities in China.

Keynote Speech 3:

Speaker: Prof. Xin Yao
Title: Ensemble Approaches to Class Imbalance Learning
Bio: Xin Yao is a Chair Professor of Computer Science at the Southern University of Science and Technology, Shenzhen, China, and a part-time professor at the University of Birmingham, UK. His major research interests include evolutionary computation, ensemble learning and search-based software engineering. His work won the 2001 IEEE Donald G. Fink Prize Paper Award, 2010, 2016 and 2017 IEEE Transactions on Evolutionary Computation Outstanding Paper Awards, 2010 BT Gordon Radley Award for Best Author of Innovation (Finalist), 2011 IEEE Transactions on Neural Networks Outstanding Paper Award, and many other best paper awards. He received the prestigious Royal Society Wolfson Research Merit Award in 2012 and the IEEE CIS Evolutionary Computation Pioneer Award in 2013.

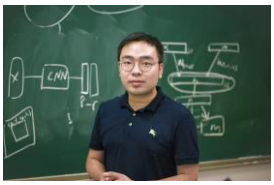


Keynote Speech 4:

Speaker: Prof. Xiaoguang Yang
Title: Understand Financial Risks Better with Big Data
Bio: Professor of Academy of Mathematics and Systems Science, Chinese Academy of Sciences; Deputy Director of Institute of Systems Science, CAS; Director of Key Laboratory of Management, Decision and Information Systems, CAS; President of Society of System Engineering of China, Vice President of Society of Operations Research of China. He obtained his BSc. and PhD. from Tsinghua University, and his research interests include risk management, game theory and combinatorial optimization.

Keynote Speech 5:

Speaker: Dr. Ji Feng
Title: Data-driven computational finance in action
Bio: Ji Feng joined SINOVATION AI Institute as the deputy dean of Nanjing Research Center in 2018. He has published a series of influential research papers in AI including deep neural networks and deep forests. Currently he served as the vice-chair of IEEE Federated learning standard working group and PC members of top AI conferences including NeurIPS-19, AAAI-18, ICML-19, PAKDD-19. As the deputy dean of Nanjing Research Center, he is leading an excellent team of engineers and scientists working on transforming machine learning (especially robustness AI) and computational finance into real-world applications.



CME Speaker

Speaker: Kelvin Lee, Director, Client Development & Sales, Greater China
Bio: Kelvin Lee is Director, Client Development & Sales, for CME Group. Based in Hong Kong, he is responsible for expanding CME Group’ s footprint and focusing on developing growth opportunities and customer relationships with intermediaries and banks in Greater China.
Before that, Lee was at UOB Bullion and Futures Ltd, where he was involved in the sales activities for financial institutions. He was also instrumental in the launch of UOB Bullion and Futures Ltd’ s securities trading operations. In total, Lee has more than ten years of sales experience in securities, CFDs and derivatives across various securities and derivatives trading firms in Singapore.
Lee holds an honours degree in Engineering (Aeronautical) from Nanyang Technological University.

IEEE CIFER 2019 Program

May 4-5 2019

Day 1

8:30 AM Registration
9:10 AM Opening remark (15 min)
-General chairs
9:30 AM Program introduction (15 min)
-Program chairs
9:45 AM Sponsor introduction (15 min)
- CME etc Sponsor introduction
10:00 AM Keynote 1 (45 min)
10:45 AM Coffee & tea
11:15 AM Keynote 2 (45 min)
12:00 AM Lunch (CFETC annual meeting)
13:30 PM Keynote 3 (45 min)
14:15 PM Coffee & tea
14:30 PM Keynote 4 (45 min)
15:15 PM Coffee & tea
15:30 PM Session AB1
16:30 PM Session AB2
18:30 PM Banquet (all paper-registered attendees, sponsors)

Day 2

8:30 AM Registration
9:10 AM Keynote 5 (45 min)
9:55 Session FA1
10:55 PM Coffee & tea
11:05 AM Session FA2
12:05 AM Lunch
13:30 PM Session FA3
15:30 PM Coffee & tea
15:45 PM Session FA4
17:25 PM end

Presentation requirements: in English, 20mins maximum slides.

Sponsors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蔚 爱 科 技

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Appendix sessions

AI and BDA

Session 1 (AB1) May 4 15:30-16:50 Session Chair: **Adam Ghandar**

1. Haizhou Qu and Dimitar Kazakov. Detecting Causal Links between Financial News and Stocks
2. Samuel Gyamerah, Philip Ngare and Dennis Ikpe. On Stock Market Movement Prediction Via Stacking Ensemble Learning Method
3. Jie Zheng, Andi Xia, Lin Shao, Zengchang Qin and Tao Wan. Stock Volatility Prediction Based on Self-attention Networks with Social Information
4. Yu-Fei Lin, Yeong-Luh Ueng, Wei-Ho Chung and Tzu-Ming Huang. Stock Price Range Forecast via a Recurrent Neural Network Based on the Zero-Crossing Rate Approach

Session 2 (AB2) May 4 16:50-17:50 Session Chair: **Michael Shaw**

5. Jia-Hao Syu, Mu-En Wu, Shin-Huah Lee and Jan-Ming Ho. Modified ORB Strategies with Threshold Adjusting on Taiwan Futures Market
6. Jason Rhuggenaath, Alp Akcay, Yingqian Zhang and Uzay Kaymak. Optimizing reserve prices for publishers in online ad auctions
7. Shuixiu Lu, Sebastian Oberst, Guoqiang Zhang and Zongwei Luo. Period adding bifurcations in dynamic pricing processes

Financial Applications

Session 3 (FA1) May 5 9:55-10:55 Session Chair: **Ning Jia**

8. Yanzhe Kang, Runbang Cui, Jiang Deng and Ning Jia. A novel credit scoring framework for auto loan using an imbalanced-learning-based reject inference
9. Reza Refaei Afshar, Yingqian Zhang, Murat Firat and Uzay Kaymak. A Decision Support Method

to Increase the Revenue of Ad Publishers in Waterfall Strategy
10. Yi Xiang, Yali Wang, Zhixi Li, Tse-Ho Lee, Du Tang, Kent Wu and Zhibin Lei. Smart Wealth Management System for Robo-Advisory

Session 4 (FA2) May 5 11:05-12:05 Session Chair: **Jiang Deng**
11. Weiwei Zhang and Chao Zhou. Deep Learning Algorithm to solve Portfolio Management with Proportional Transaction Cost
12. Yan Wang, Tsz Ho Lee, Run Fang Yu, Yi Xiang, Yang Liu, Zhi Bin Lei and Ka Yin Chau. Trading Strategies Evaluation Platform with Extensive Simulations
13. Zhang Michael, Shenglin Lu and Yu Lu. Risk–Managed Strategy Index

Session 5 (FA3) May 5 13:30-15:30 Session Chair: **Joël Priolon**
14. David Batista Soares, Alain Bretto and Joël Priolon. Flows of information have changed: Do financial markets remain efficient ?
15. Yue Liu, Adam Ghandar and Georgios Theodoropoulos. A Meta-Hueristic Based Feature Selection Model for Credit Risk Evaluation in Emerging Markets
16. Yoshiyuki Suimon, Hiroki Sakaji, Kiyoshi Izumi, Takashi Shimada and Hiroyasu Matsushima. Japanese long-term interest rate forecast considering the connection between the Japanese and US yield curve
17. Kyoto Yono, Kiyoshi Izumi, Hiroki Sakaji, Hiroyasu Matsushima and Takashi Shimada. Extraction of Focused Topic and Sentiment of Financial Market by using Supervised Topic Model for Price Movement Prediction
18. Atsuki Nakayama, Kiyoshi Izumi, Hiroki Sakaji, Hiroyasu Matsushima, Takashi Shimada and Kenta Yamada. Short-term Stock Price Prediction by Analysis of Order Pattern Images
19. Tomoki Ito, Kota Tsubouchi, Hiroki Sakaji, Tatsuo Yamashita and Kiyoshi Izumi. Word-level Sentiment Visualizer for Financial Documents

Session 6 (FA4) May 5 15:45-17:25 Session Chair: **Sheng Xiao**
20. Qitao Xie, Qingquan Zhang, Dayuan Tan, Ting Zhu, Sheng Xiao, Beibei Li, Lei Sun, Ping Yi, Junyu Wang. Chatbot Application on Cryptocurrency
21. Yifan Li, Xuan Wang, Zoe L Jiang, Shuhan Qi, Xinhui Liu and Qian Chen. RGB-D tracker under Hierarchical structure
22. Han Ao and Edward Tsang. Trading Algorithms Built with Directional Changes
23. Le Lv, Jianbo Cheng, Nanbo Peng, Min Fan, Dongbin Zhao and Jianhong Zhang. Autoencoder based Graph Convolutional Networks for Online Financial Anti-fraud
24. Jun Chen and Edward P.K. Tsang. Tracking Regime Changes in the Markets.