

RESEARCH INSTITUTE OF QUANTITATIVE FINANCE



CONTACT US

Email: RIQF@xjtlu.edu.cn

Tel: +86 (0)512 88161521

Address: Xi'an Jiaotong-Liverpool
University, 111 Ren'ai Road, SIP
Suzhou, Jiangsu, PRC, 215123

OVERVIEW

As for the modern economic structure, the financial industry is one of the advantageous fields that integrates core elements such as talents, innovation, and technology. In order to strengthen the cooperative research with relevant enterprises, School of Mathematics and Physics (SMP) of Xi'an Jiaotong-Liverpool University (XJTLU) and the International Business School in Suzhou (IBSS) co-established the Research Institute of Quantitative Finance (hereinafter referred to as 'RIQF'), in conjunction with several other related departments. The institute's vision is to become one of the leading research institutes in China that specialize in finance and quantitative sciences. Its key goal is to solve practical interdisciplinary problems in finance, including financial engineering, risk management and asset management, and disseminate results internationally in terms of high quality and practical research outputs.

With a range of experts from different disciplines with rich research achievements in quantitative finance, RIQF keeps up with the upgrading of the financial industry in the modern service industry. By virtue of the nation's policy guidance regarding 'Financial Technology', 'Inclusive Finance' and 'Big Data in Finance', it established a training mechanism for applied talents. Based on XJTLU's existing postgraduate training system, driven by research topics proposed by financial institutions, and aiming at cultivating professional elites, industry elites and leaders, RIQF established an experimental field and is actively forging the XJTLU education model 3.0 by highlighting new mechanisms and models, making great reformation and explorations, and applying efficient and flexible governance. Relying on the cutting-edge research of top academic teams and the new opportunities as well as challenges derived from financial and economic reforms, RIQF brings together top research forces and academic resources both from home and abroad, and thus build a world-class financial research system with focuses on key financial and economic issues that the world is now facing. In addition, relying on the Intelligent Computing and FinTech Laboratory ('ICFT'), RIQF will actively carry out research and training projects related to Quantitative Finance and Financial Technology, and consider it as an important scientific and research platform to explore advanced methods and technological innovations in financial industry.

Xi'an Jiaotong-Liverpool University
西交利物浦大学

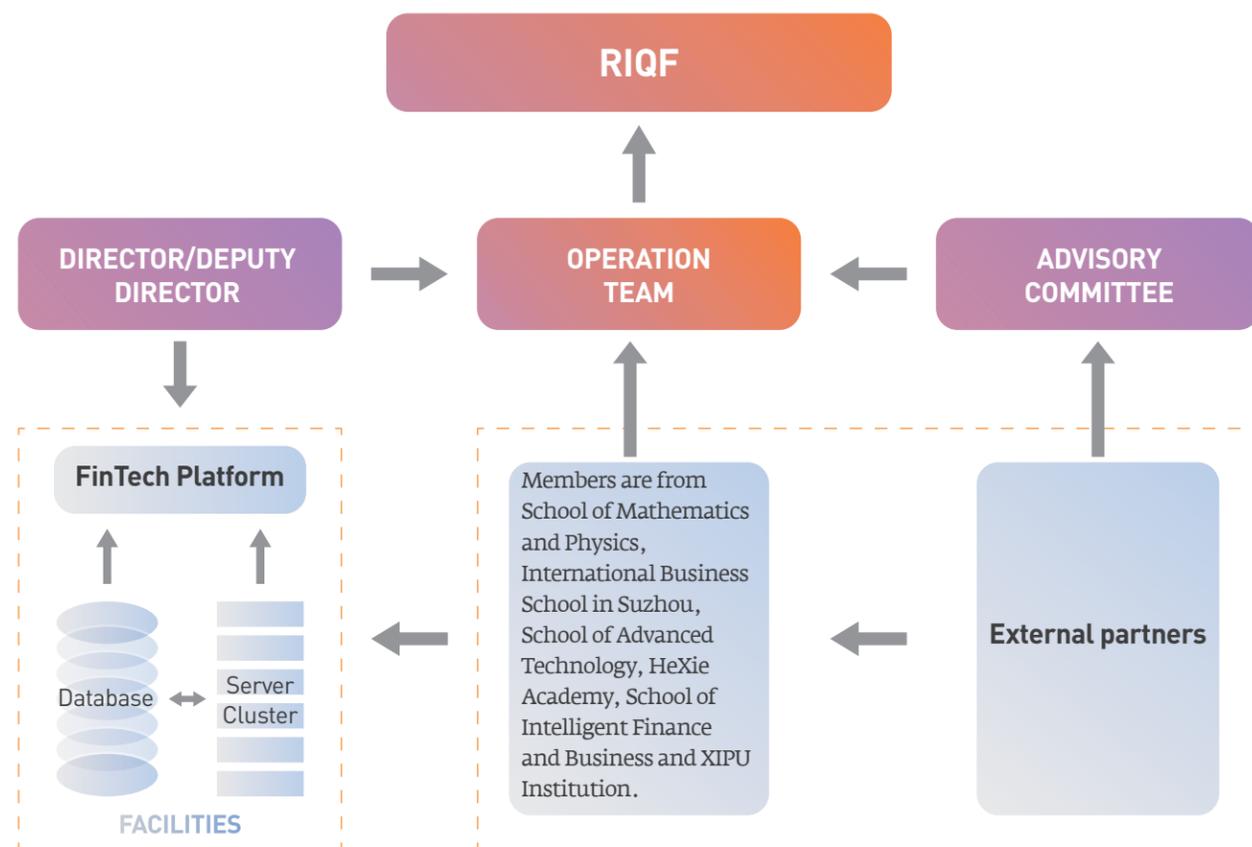
Research Institute Of Quantitative Finance
数量金融研究院

Xi'an Jiaotong-Liverpool University
西交利物浦大学

INTELLIGENT COMPUTING AND
FINTECH LABORATORY
智能计算与金融科技实验室

STRUCTURE

The RIQF consists of the director, the deputy director, the operation team and the advisory committee (see below), while the advisory committee can be further classified into two categories: the strategic advisory committee and the industry one. The Strategic Advisory Committee is aimed at guiding the direction for the institute, providing advice for students in Financial Mathematics, and strengthening the collaborations between academic and industry communities. The appointed strategic advisors are all industry experts in Quantitative Finance related fields with high reputation. Currently, the 2023-2026 Strategic Advisory Committee has 8 well-known scholars and 6 industry experts. Meanwhile, proposed by external partners, RIQF also established the Industry Advisory Committee to advance the deep integration with relevant partners in industry synergy, talent cultivation and scientific research, therefore provides our students with more training bases and wider connections with the industry.



RESEARCH TEAM

After years of efforts, RIQF now has formed a research team with over 20 members who are respectively from School of Mathematics and Physics, International Business School in Suzhou, School of Advanced Technology, School of Intelligent Finance and Business and HeXie Academy.

School of Mathematics and Physics	Prof. Fei Ma, Prof. Conghua Wen, Dr. Yi Hong, Dr. Qiang Niu, Dr. Lu Zong, Dr. David Liu, Dr. Ruonan Zhang, Dr. Liying Liu, Dr. Fajin Wei, Dr. Erfang Ma, Dr. Chen Yang, Dr. Liu Liu, Dr. Yougmin Ha, Dr. Xin He, Dr. Yaofei Xu, Dr. Ran Xu, Dr. Zhehao Zhang, Dr. Jiajun Liu, Dr. Dejun Xie, Dr. Arodh Lal Karn
International Business School in Suzhou	Prof. Xuezhong Tony He, Prof. Hefei Wang, Prof. Stephen Gong, Dr. Mofei Jia, Dr. Peng Cheng, Dr. Brian Wright, Prof. Michael Chng, Dr. Juan Tao, Dr. Xiaoming Ding, Dr. Qing Ye, Dr. Jia Zhai, Dr. Jiatao Liu and Dr. Yajun Xiao
School of Advanced Technology	Prof. Eng Gee Lim, Prof. Steven Guan, Dr. Jimin Xiao
School of Intelligent Finance and Business	Dr. Qiong Ji, Dr. Yicheng Wang
HeXie Academy	Dr. Peng Liu

In recent five years, members of RIQF have published more than 100 papers and monographs in Finance or related fields, acquired several intellectual property rights and technical patents in Financial Technology, received over 10 NSFC grants and other grants at provincial and municipal level.

OVERSEAS RESEARCH AND FINANCIAL INSTITUTIONS	Higher institutions	Institute of Finance and Actuarial Science at University of Liverpool, University of Liverpool, University of Warwick, University of Cincinnati, Florida State University, and Sungkyunkwan University
	Financial institutions	Thomson Reuters (UK), Wells Fargo (USA), Wellington Asset Management (USA), Istanbul Stock Exchange (Turkey), and Wilshire Associates (USA).
DOMESTIC RESEARCH AND FINANCIAL INSTITUTIONS	Higher institutions	New York University Shanghai, School of Finance and Finance at Renmin University of China, School of Economics at Zhejiang University, Institute of Finance at Fudan University, and China Hedge Fund Research Center at Shanghai Advanced Institute of Finance.
	Financial institutions	Man Investments (HK), China Financial Futures Exchange, Shanghai Futures Exchange, WIND, Sinolink Securities, Donghai Securities, Ping An Life Insurance of China, Chengfang Cloud, China Securities, Industrial Securities, etc.

The major academic institution that RIQF collaborates with in Suzhou is Center for Financial Engineering in Suzhou University while the enterprises includes Kunce Consulting, Chuangyuan Futures, Wilshire Associates, Camry Reed, Jinyibao Financial Technology, Soochow Securities, etc.

KEY FIELDS

The research field of RIQF covers a wide range of issues including quantitative finance and financial technology, as well as new financial formats (such as carbon financial markets, etc.). Combining the advantages of the institute's own theory, technology and data resource, RIQF will mainly focus on the following research directions:

HIGH-FREQUENCY DATABASE CONSTRUCTION AND BIG DATA ANALYSIS BASED ON CHINA'S FINANCIAL MARKET.

QUANTITATIVE TRADING STRATEGIES AND ASSET ALLOCATION TECHNIQUES.

RESEARCH ON FINANCIAL STOCHASTIC MODELING METHOD AND ASSET PRICING TOOL PLATFORM.

RESEARCH ON ARTIFICIAL INTELLIGENCE (AI) AND FINANCIAL TECHNOLOGY (FINTECH) APPLICATION.

KEY FIELDS

RESEARCH ON ENVIRONMENT, SOCIAL AND GOVERNANCE (ESG) AND GREEN (CARBON) FINANCE.

RESEARCH ON BEHAVIORAL AND EXPERIMENTAL FINANCE.

FINANCIAL TECHNOLOGY (FINTECH) TALENT TRAINING PROGRAM.

High-frequency database construction and big data analysis based on China's financial market.

High-frequency data resources are the basis for continuous research on quantitative finance and financial technology. RIQF takes advantage of the existing resources of ICFT and Intelligent Computing to promote the construction of a high-frequency database of China's derivatives market (covering financial or commodity-related futures and options), and to carry out relevant big data analysis.

Quantitative trading strategies and asset allocation techniques.

In the field of wealth management, there is a large market demand and user groups regarding trading strategies and configuration technologies for various financial assets. The research outputs in this field can help RIQF expand a wider range of academic and industry connections, and further enhance its influence.

Research on financial stochastic modeling method and asset pricing tool platform.

In the context of data processing and artificial intelligence (AI) technologies being widely used in all aspects of financial business, stochastic theory and methods are still the core of these technologies. The Institute will continue to increase investment, continue to accumulate scientific research achievements in the field of stochastic modeling, and provide core support for the development of big data analysis and artificial intelligence technology; Technical advantages.

Research on artificial intelligence (AI) and financial technology (Fintech) application.

AI is a new trend derived from the development of the information industry, which has a far-reaching impact on financial formats and businesses. In addition to the previous achievements in the field of financial big data learning, RIQF will continuously explore and build a platform for integrating AI with algorithmic trading and asset allocation.

Research on Environment, Social and Governance (ESG) and Green (Carbon) Finance.

In recent years, extreme changes in global climate have brought new challenges to the financial industry, and thus it brings out a new financial market form - carbon financial market. In response to these new changes and market forms, RIQF will carry out relevant cooperative researches on carbon finance in both green (carbon) finance and ESG.

Research on Behavioral and Experimental Finance.

This kind of research, combining finance and psychology to study the financial behavior of individuals and as well as families with experimental methods, reveals the irrational behavior and decision-making rules of the financial market. RIQF will focus on China's financial market and domestic user groups, with a view to providing guidance on rational financial investment and decision-making behavior.

Financial technology (Fintech) talent training program.

Combined with the needs of the cooperation units of RIQF, it will continuously carry out talent training programs in the field of financial technology to help enterprises solve the problems of talent shortage.

The expected goals include:

- 1) to build a fintech research and development platform based on AI technology;
- 2) policy proposals on improving the investment and financing environment in Suzhou and as well as in SIP;
- 3) to provide effective technical system for related enterprises in management of market, credit and exchange rate risks;
- 4) to build an regional industry-university-research innovation platform based on fintech-driven credit risk control. At the same time, relying on the international education model of XJTLU, RIQF continues to promote the localization of talent training, and has successively cooperated with regional partners such as Industrial Bank, Industrial Securities, Suzhou Kunce Technology Co., Ltd., Suzhou Chengfang Cloud Technology Co., Ltd., Chuangyuan Futures, China Securities, Suzhou Broadcasting System, and Jiangsu Tinghong Law Firm to establish a practical training base for XJTLU students.

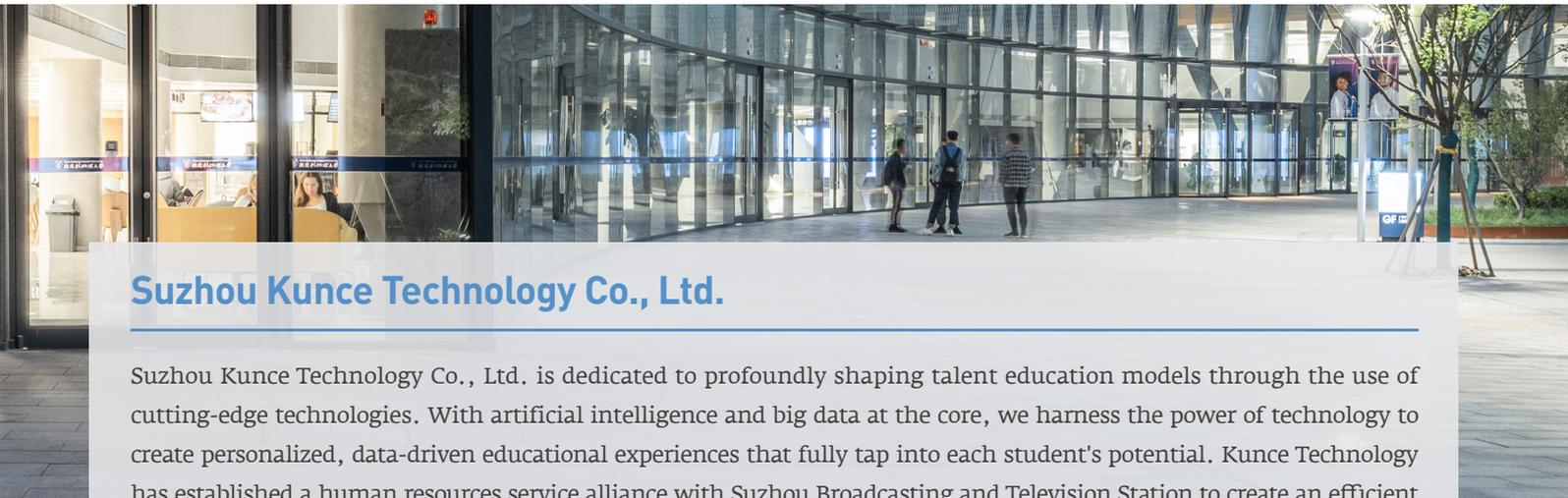


In addition, RIQF organizes all levels of industry seminars and international academic conferences on quantitative finance (including topics such as China's financial and derivatives markets), and also cooperates with financial institutions to jointly explore the transformation of research outputs. Based on the financial cooperation network of all participants, RIQF will continue to promote comprehensive cooperation with well-known enterprises and academic institutions at home and abroad, and conduct regular academic and industry exchanges.

Research in these fields can greatly promote the innovation in financial products, technology and knowledge, which will effectively help transform and upgrade SIP from an economic structure based on traditional manufacturing industry to one dominated by modern service industry. Meanwhile, it provides new added value for sustainable regional economies including Suzhou. The healthy development of RIQF can further improve the investment and financing environment of Suzhou and SIP, provide financial risk control technology systems for related enterprises, and offer basic research results for the cultivation and development of modern financial service enterprises, thereby expanding the influence of Suzhou and SIP as the core area of the Southern Jiangsu demonstration plot for modernization.

STRATEGIC PARTNERSHIP

Based on the extensive academic exchanges and scientific research cooperation with academia and industry, RIQF focuses more on developing new strategic partnerships with external institutions. At present, the institute has formed deep cooperation with enterprises in Suzhou Industrial Park in talent training, professional course development and scientific research assistance.



Suzhou Kunce Technology Co., Ltd.

Suzhou Kunce Technology Co., Ltd. is dedicated to profoundly shaping talent education models through the use of cutting-edge technologies. With artificial intelligence and big data at the core, we harness the power of technology to create personalized, data-driven educational experiences that fully tap into each student's potential. Kunce Technology has established a human resources service alliance with Suzhou Broadcasting and Television Station to create an efficient platform for gathering high-quality domestic and international entrepreneurial projects and talent. The alliance primarily supports large-scale investment programs such as "Creating a Winning Future," "OFFER Direct Delivery," and "China Management Trainee" under Suzhou Broadcasting and Television Station. Additionally, both parties jointly organized the "Overseas Returnee Employment Forum" as part of the 2023 Suzhou International Elite Week event, aiming to make Suzhou the "first-choice city for overseas-educated returnees."

Kunce Technology has received the "2022 Influential Service Brand of the Year" award at the Tencent News Education Summit, as well as strategic investments from Tsinghua X-Lab. It has also become a partner of the Artificial Intelligence Research Institute of Shanghai Jiao Tong University, the strategic partner of Suzhou Broadcasting and Television Station's workplace variety shows "China Management Trainee" and "OFFER Direct Delivery," and the strategic partner of the Quantitative Finance Research Institute of Xi'an Jiaotong-Liverpool University.

The founder, Mr. Jia Yuyu, has been engaged in higher education for many years, assisting over a dozen domestic and foreign enterprises in building talent databases and organizing dozens of entrepreneurial competitions. He has selected high-quality projects to introduce back to China and has implemented them in the mainland. Mr. Jia currently serves as the chairman of Suzhou Kunce Technology Co., Ltd., and holds several social positions, including being one of the first batch of young cadres in Suzhou (Xiangcheng District), Honorary Deputy Dean of Industry Development at Xi'an Jiaotong-Liverpool University's Quantitative Finance Research Institute, an external tutor at the University of Liverpool, and an honorary member of the Forbes Global Alliance.