



Advances in Financial Technologies and Applications to Investment Solutions for Individuals

Four-University Rotating FinTech Conference
April 2nd, 2019 – Palais Brongniart, Paris, France

- Mass Production, Mass Customisation and Mass Distribution of Improved Retirement Solutions with Digital Goal-Based Investing Technology
-
- Modelling Investor Behaviour Based on Micro-Level Big Data and AI Systems
-
- What Do Large Datasets Reveal about Household Financial Decisions?
-
- Decentralised Enterprise Risk Management: Optimal Capital Allocation for Global Diverse FinTech Organisations
-
- A Case Study on Enhancing Income Security via Financial Technologies: Fully Personalised GBI-Based Life-Time Financial planning Service for Every Korean Citizen by National Pension Service
-
- The Rise of Robo-Advisors: A Threat or an Opportunity for the Wealth Management Industry?

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Advances in Financial Technologies and Applications to Investment Solutions for Individuals

In the context of the fourth revolution, the digital revolution, which is expected to have a dramatic impact on the investment industry, four prominent academic institutions renowned for the quality and relevance of their educational and research programmes in finance and technology – **EDHEC-Risk Institute, KAIST, Princeton** and **Tsinghua Universities** – have joined forces. Together, they have been hosting a series of rotational conferences on **financial technologies** to offer a forum to facilitate discussion among all interested parties (academics, practitioners and regulators) around the world.

After successful events organised in Princeton in 2017 and Seoul in 2018, EDHEC-Risk Institute is pleased to be hosting the "**Advances in Financial Technologies and Applications to Investment Solutions for Individuals**" conference to be held in Paris on 2 April 2019, at the Palais Brongniart, which was the historical French Stock Exchange.

Leading experts from the US, Asia and Europe will be featured at the conference, including, **Lionel Martellini** (Director of EDHEC-Risk Institute), **Changle Lin** (Adjunct Professor, Tsinghua University), **John Mulvey** (Professor and founding member of the Bendheim Centre for Finance at Princeton University), **Laurent Calvet** (Professor at EDHEC Business School) and **Woo Chang Kim** (Associate Professor at KAIST).



Programme of the Conference

8:15am–8:45am: Registrations, Morning Tea/Coffee and pastries

8:45am–9:00am: Opening Address
Arnaud de Bresson, CEO, *Paris EUROPLACE*

9:00am–9:45am: Mass Production, Mass Customisation and Mass Distribution of Improved Retirement Solutions with Digital Goal-Based Investing Technology

Lionel Martellini, Professor of Finance, *EDHEC Business School*, and Director, *EDHEC-Risk Institute*

9:45am–10:30am: Modelling Investor Behaviour Based on Micro-level Big Data and AI Systems

Changle Lin, Adjunct Professor, *Tsinghua University*

10:30am–11:00am: Morning break

11:00am–11:45pm: Workshop
Providing Wealth Management Solutions through KODEX ETFs and GBI Technology

Junghwan Lee, Head of ETF Solution Division, *Samsung Asset Management*

11:45am–12:30pm: Decentralised Enterprise Risk Management: Optimal Capital Allocation for Global Diverse FinTech Organisations

John Mulvey, Professor of Operations Research and Financial Engineering, ORFE Department, *Princeton University*

12:30pm–2:00pm: Lunch

2:00pm–2:45pm: What Do Large Datasets Reveal about Household Financial Decisions?

Laurent Calvet, Professor of Finance, *EDHEC Business School*

2:45pm–3:45pm: A Case Study on Enhancing Income Security via Financial Technologies: Fully Personalised GBI-Based Life-Time Financial planning Service for Every Korean Citizen by National Pension Service

Woo Chang Kim, Associate Professor, Industrial and Systems Engineering Department, and Head, KAIST Centre for Wealth Management Technologies, *Korea Advanced Institute of Science and Technology (KAIST)*

Min Jeong Kim, Deputy Research Fellow, *National Pension Research Institute (NPRI)*

Chong-Hyun Won, Head of the Pension Management Policy Division, *National Pension Service*

JooHwan Hong, Research Scientist, *Veranos*

3:45pm–4:15pm: Afternoon break

4:15pm–5:00pm: Workshop
Machine Learning in the Portfolio Management Workflow

Bruno Taillardat, Global Head of Smart Beta and Factor Investing, *Amundi*

Giacomo Sarchioni, Data Scientist, *Amundi*

5:00pm–6:00pm: Roundtable
The Rise of Robo-Advisors: A Threat or an Opportunity for the Wealth Management Industry?

Moderator: **Yuri Bender**, Editor-in-Chief, Professional Wealth Management, *Financial Times*

Panelist 1: **Patrick Armstrong**, Senior Officer, Financial Innovation, *ESMA*

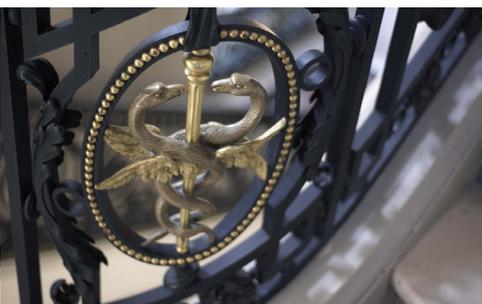
Panelist 2: **Paolo Sironi**, FinTech Thought Leader and Elective Member, *IBM Industry Academy*

Panelist 3: **Zakaria Laguel**, Founder and CEO, *WeSave*

Panelist 4: **Christophe Donay**, Head of Asset Allocation and Macroeconomic Research, *Pictet Wealth Management*

Panelist 5: **Vincent Fourcaut**, Member, *The French Asset Management Association (AFG)*, Co-founder and President, *Quantology Capital Management*

6:00pm–7:00pm: Drinks reception



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About Amundi ETF, Indexing and Smart Beta*

With more than €96 billion in assets under management, Amundi ETF, Indexing and Smart Beta is one of Amundi's strategic business areas and is a key growth driver for the Group.

Amundi ETF, Indexing and Smart Beta business line provides investors - whether institutionals or distributors - with robust, flexible and cost-efficient solutions, leveraging Amundi Group's scale and deep resources.

With over 30 years of benchmark construction and replication expertise covering over 100 indices, Amundi is a trusted name in ETF & Index management among the world's largest institutions. The team also manages over €20 billion in Smart Beta & Factor Investing, covering solutions based on both efficient risk management and factor investing. These solutions are available in passive (index-based or ETF) and active management.

Thanks to the support of the whole Amundi Group, Amundi ETF, Indexing & Smart Beta business line helps meet the asset allocation needs of investors, while continuously innovating to design products that help clients meet the new challenges.

The business line benefits from the long-standing ESG knowledge of one of the biggest non-financial analyst teams in Europe, as well as the wide quantitative research resources of the Group to customise portfolios according to investors' constraints.

* All figures and data are provided by Amundi ETF, Indexing & Smart Beta at end June 2018



About Samsung Asset Management

Established in 1998, Samsung Asset Management ("SAM") is Korea's leading investment management company, providing investment trust and mutual fund management, advisory and related services with over US\$210.5bn* in assets under management.

As a full service investment manager, SAM offers investment advisory and management services in all segments from equities, fixed income to alternative assets. In Korea, SAM has been at the forefront of product innovation and was the first to introduce innovative products in the market.

Under the KODEX brand name, SAM launched Korea's first ETF in October 2002. Today, KODEX ETFs lead the market with over 50% market share in terms of AuM (\$18.5bn**) and over 80% in terms of turnover. KODEX products are the largest and most actively traded ETFs in the market. Going forward, SAM strives to expand the domestic ETF market by utilizing ETFs to provide wealth management solutions as well as customized solutions. SAM's headquarters is located in Seoul with subsidiaries in Hong Kong, New York, London and China. Samsung Asset Management is a subsidiary of Samsung Life Insurance, Korea's largest insurance company.

* Combined AUM of Samsung Asset Management, Samsung Active Asset Management and Samsung Hedge Asset Management, as of 30 September 2018.

** Combined AUM of Samsung Asset Management KODEX ETFs, as of 30 September 2018.

Fees

Registration fee: €150 (special rate at €105 for endorsing partner members, asset owners, EDHEC Alumni). The registration fee includes a buffet lunch, refreshments and conference documentation. Accommodation is not included.

Cancellation Policy

Given the moderate conference fee, we do not accept cancellations; invoiced sums will remain payable in full. If a registered delegate is unable to attend, a substitute delegate from the same organisation is welcome at no extra charge. Conference documentation designed by EDHEC-Risk Institute will be made available online to all delegates. EDHEC-Risk Institute reserves the right to alter the program without notice.

Billing and Payment

The fee is billed following registration and must be settled before the conference begins. Payment can be made by credit card and wire transfer.

Further Information and Registration

For further information, contact Maud Gauchon at: maud.gauchon@edhec-risk.com or on: +33 493187887
To register, visit:
<https://www.regonline.co.uk/EDHECRiskFintech2019>
before March 26, 2019

Venue

Palais Brongniart
Place de la Bourse – 75002, Paris, France
Tel.: +33 (0)1 83 92 20 20

Hotel Accommodation

We have negotiated preferential rates with the following hotels, rooms are subject to availability and are not pre-booked (prices available until end of January or February for some of them). Prices are given on a basis of single occupancy, per night, without breakfast.

Hotel Panache
(Standard room: €237 Superior room: €267)
hotel@hotelpanache.com

Hotel Mercure Paris Opera Louvre
(Standard room: €200)
H1614-RE@accor.com

Hotel Saint James Albany
(Standard room: €209)
reservation@saintjamesalbany.com

Citadines Opéra Paris
(Studio room: €195 Suite Couture: €224)
corporate@citadines.com



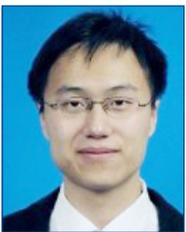
Conference Speakers



Laurent E. Calvet is a Professor of Finance at EDHEC Business School. He is an engineering graduate from Ecole Polytechnique (1991) and Ecole Nationale des Ponts et Chaussées (1994) in Paris and holds a Ph.D. in Economics from Yale University (1998). He has served as the John Loeb Professor of the Social Sciences at Harvard University (1998-2004), an HEC Foundation Professor at HEC Paris (2004-16), and a Professor and Chair in Finance at Imperial College London (2007-8). His contributions to household finance, asset pricing, and multifractal risk modeling have appeared in leading economics, finance, and statistics journals. Prof. Calvet pioneered with Adlai Fisher the Markov-switching multifractal model of financial volatility, which is used by academics and financial practitioners to forecast volatility, compute value-at-risk, and price derivatives. He is a Research Associate of Goethe University Frankfurt's Center for Financial Studies, a Founding Member of the CEPR Household Finance Network, and an editorial board member of several academic journals, including *Journal of Fractal Geometry* and *Journal of Pension Economics and Finance*.



Woo Chang Kim is associate professor in the Industrial and Systems Engineering Department at the Korea Advanced Institute of Science and Technology (KAIST) and Head of KAIST Centre for Wealth Management Technologies. He serves on the editorial boards for several journals, including *Quantitative Finance*, *Journal of Portfolio Management*, *Optimisation and Engineering*, and *Quantitative Finance Letters*. He is an expert on financial optimisation and portfolio management, and has published many papers in leading academic and practitioner journals in the related fields as well as a textbook on robust portfolio management. He is a member of the voting rights committee and the fund management refinement committee for Korea's National Pension System, a member of technology advisor group for Financial Services Commission, and an advisor for Samsung Asset Management. He earned his B.S. and M.S. degrees from Seoul National University, and Ph.D. from Princeton University.



Changle Lin is Adjunct Professor at Tsinghua University. He got his bachelor's in mathematics from Tsinghua University in 2007, and his PhD degree in Operations Research from Princeton University in 2015. He was the chief architect of investment engine system in Merrill Lynch, and was on both strategic asset allocation and dynamic asset allocation committee. He came back to Tsinghua in 2016 to help Prof. Yao set up FinTech joint lab and founded Wealth Engine Technologies to become a leading AI firm in wealth & asset management industry. His research areas include asset allocation & portfolio theory, stochastic control & optimisation and artificial intelligence applied in state-of-art client profiling, asset management, asset & liability management and risk management systems.



Lionel Martellini is a Professor of Finance at EDHEC Business School and the Director of EDHEC-Risk Institute. He is a former member of the faculty at the Marshall School of Business, University of Southern California, and has also taught at U.C. Berkeley and at Princeton University, where he has been a visiting fellow at the Operations Research and Financial Engineering department. Lionel holds Master's Degrees in Business Administration, Economics, Statistics and Mathematics, as well as a PhD in Finance from the Haas School of Business, University of California at Berkeley. Outside of his activities in finance, he recently completed a PhD in Relativistic Astrophysics and has become a member of the LIGO/Virgo international collaboration for the observation of gravitational waves. Professor Martellini is a member of the editorial board of *The Journal of Portfolio Management*, *The Journal of Alternative Investments*, and *The Journal of Retirement*. He conducts active research in a broad range of topics related to investment solutions for individual and institutional investors, equity and fixed-income portfolio construction, risk management and derivatives valuation. His work has been published in leading academic and practitioner journals and has been featured in major European and global dailies such as *The Economist*, *The Financial Times* and *The Wall Street Journal*. He has co-authored reference textbooks on topics related to Alternative Investment Strategies, Fixed-Income Securities, Goal-Based Investing and is preparing a new textbook on Investment Solutions.



John M. Mulvey is a Professor in the Operations Research and Financial Engineering Department and a founding member of the Bendheim Centre for Finance at Princeton University. His specialty is financial optimisation and advanced portfolio theory. For over thirty-five years, he has implemented asset-liability management systems for numerous organisations, including PIMCO, Towers Perrin/Tillinghast, AXA, Siemens, Munich Re-Insurance, and Renaissance Re-Insurance. His current research addresses regime identification and factor approaches for longterm investors, including family offices, and pension plans, with an emphasis on optimising performance and protecting investor wealth (and surplus wealth). He has published over 150 articles and edited 5 books. He is developing a Massive Online Open Course (MOOC) with Professor Martellini -- "Python Machine Learning for Investment Management," and is a senior advisor for Alibaba (Ant Financial) and First Republic Bank.

Academic Institutions



Operating from campuses in Lille, Nice, Paris, London and Singapore, EDHEC is one of the world's top 20 business schools. Fully international and directly connected to the business world, EDHEC is a school for business, rather than a business school, where excellence in teaching and research focuses on innovation to stimulate entrepreneurship and creativity. For business from birth and dedicated to business, EDHEC makes entrepreneurs for life, able to remodel or create successful businesses wherever they work. EDHEC functions as a genuine laboratory of ideas and produces innovative solutions valued by businesses. The School's teaching philosophy, inspired by its award-winning research activities, focuses on "learning by doing".

Part of EDHEC Business School and established in 2001, EDHEC-Risk Institute has become the premier academic centre for industry-relevant financial research. In partnership with large financial institutions, its team of permanent professors, engineers, and support staff, and research associates and affiliate professors, implements seven research programmes and six research chairs, industrial partnerships and private research projects focusing on asset allocation and risk management. Additionally, it has developed an ambitious portfolio of research and educational initiatives in the domain of investment solutions for institutional and individual investors. As part of its "Make an Impact" signature, EDHEC-Risk plays a noted role in furthering applied financial research and systematically highlighting its practical uses.

EDHEC-Risk Institute also has highly significant executive education activities for professionals, in partnership with prestigious academic partners.

In 2012, EDHEC-Risk Institute signed two strategic partnership agreements. The first was with the Operations Research and Financial Engineering department of Princeton University to set up a joint research programme in the area of investment solutions for institutions and individuals. The second was with Yale School of Management to set up joint certified executive training courses in North America and Europe in the area of risk and investment management.



ORFE is the intersection of five core disciplines: financial mathematics, operations research, optimisation, probability theory, and statistics. Research in the Department ranges from the mathematical foundations of these fields to the development of state-of-the-art methodology for solving complex problems that arise in important real-world applications in finance, engineering and the sciences. ORFE students obtain a strong quantitative and interdisciplinary training, and acquire the skills to become leaders in academia and industry.

The Bendheim Centre for Finance was established in 1998 to encourage interdisciplinary research in finance, primarily from a quantitative or mathematical perspective. The research activities of the centre are directed toward the study of financial markets and asset prices, the financial structure of firms, banks and other financial intermediaries, and the linkages between financial economics and other fields, such as engineering, operations research, mathematics, computer science, psychology and public policy.



KAIST, a research university established in 1971, has served as the gateway to advanced science, technology, and innovation for Korea. To meet the growing demand for young, competent global leaders, KAIST has developed itself as a global arena for interdisciplinary education and research opportunities.

With 1,112 faculty members working with 11,176 students, KAIST focuses on creating an atmosphere for interdisciplinary communication and collaboration for its academic units in all of its four campuses in Daejeon and Seoul to stimulate the innovative leadership and entrepreneurship needed to develop technology for the advancement of the world and for sustainable economic growth. KAIST also endeavors to strengthen its network to provide its constituents with collaboration opportunities with prominent partners from academia and industry. KAIST will continue to foster innovation and creativity for the future generation of global leaders; students who are no longer bound by the limits of specific disciplines, departments or the national borders and are dedicated to research excellence for the betterment of all mankind.

The KAIST Centre for Wealth Management Technologies (KAIST WMT Centre) was founded in 2016, to foster the interdisciplinary research for wealth management technologies. Under the core agenda of "enabling customised wealth management service for everyone", the centre is conducting various researches to provide innovative technologies which can ultimately shift the high cost service structure of wealth management industry into scalable and affordable one. Currently, the centre has 11 members from academia, industry, and regulatory agencies.



Advancing a tradition of academic excellence, Tsinghua University is a pacesetter for innovation in China. It has become a leading world university in just over 100 years. Tsinghua University excels in its fundamental task of high-level personnel training, and also serves as an indispensable base for China's scientific and technological innovation. It is among the most selective universities in the Asia-Pacific region, and a trusted global partner for researchers and academics.

Institute for Interdisciplinary Information Sciences (IIIS) was established at Tsinghua University in 2010. The Institute aims to become one of the leading research centres on interdisciplinary information sciences in the world, as well as to offer an attractive environment for top quality research and education in computer science and quantum information science in China. Its special undergraduate program, nicknamed by its students as the Yao Class, has become an international brand for excellence in undergraduate computer science education.

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