

DATA SCIENCE AND AI FORUM 2023

Jointly hosted by
City University of Hong Kong and
Lingnan University
30 – 31 May 2023

Programme Booklet

CO-ORGANIZED BY:



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WELCOME MESSAGE

On behalf of the organizing committee, we would like to extend our warm welcome to all participants of the Data Science and AI (DSAI) Forum co-organized by City University of Hong Kong and Lingnan University. We further express our sincere gratitude to the keynote and invited speakers for their valuable contributions to the event.

As data science and AI continue to rapidly evolve, with technological advancements such as GPT, the Data Science and AI Forum provides a valuable opportunity for scholars and experts across many disciplines to explore and exchange novel ideas and technological developments. The two-day forum will showcase the latest advancements and progresses in AI and data science, and drive the impact of these fields in Hong Kong and beyond. The first day of the forum features keynote talks by Prof. Xin Yao of Southern University of Science and Technology, a Frank Rosenblatt Award recipient, and Prof. Jong-shi Pang of University of Southern California, a member of the US National Academy of Engineering (NAE). The second day of the forum features four keynote talks by Prof. David Simchi-Levi of the Massachusetts Institute of Technology, an NAE member, Dr. George Lam of the United Nations ESCAP Sustainable Business Network, Prof. Yaochu Jin of Bielefeld University in Germany, and Prof. Yike Guo of the Hong Kong University of Science and Technology. Panel discussions by selected speakers on both days will be the highlights of the forum and facilitate deep interactions and discussions.

We hope you will enjoy the forum programs and leave with new insights and connections to help you advance your own work in data science and AI.

S. Joe Qin and Mingming Leng
DSAI Forum Co-chairs

FORUM PROGRAMME

Data Science and AI Forum (DSAI), Hong Kong, China

30-31 May 2023

Agenda

30 May 2023 (Tue)

Time	Activity
9:00am - 9:30am	Registration
9:30am – 10:00am	<p>Opening Remarks</p> <ul style="list-style-type: none"> Speech by Prof. Dong SUN, JP, Secretary for Innovation, Technology and Industry Bureau Speech by Prof. Freddy BOEY, President and University Distinguished Professor, City University of Hong Kong State of Data Science at CityU and Hong Kong, by Prof. S. Joe QIN, Co-Chair of DSAI Forum, Dean of School of Data Science and Director of Hong Kong Institute for Data Science, City University of Hong Kong Group photos
10:00am - 11:00am	<p>Keynote Speaker Prof. Xin YAO, Southern University of Science and Technology <i>Multi-objective Ensemble Learning and Its Applications</i> Session Chair: Dr. Zijun ZHANG</p>
11:00am - 11:15am	Coffee Break
11:15am - 11:45am	<p>Invited Speaker Prof. Minlie HUANG, Tsinghua University <i>The New Paradigm of Natural Language Generation: Non Autoregressive Generation Theories and Models</i> Session Chair: Dr. Xiangyu ZHAO</p>
11:45am - 12:15pm	<p>Invited Speaker Prof. Helen MENG, The Chinese University of Hong Kong <i>Conversational AI, Generative AI, ChatGPT, GPTx and our Future</i> Session Chair: Dr. Qi WU</p>
12:15pm - 2:00pm	Lunch Break
2:00pm - 3:00pm	<p>Keynote Speaker Prof. Jong-shi PANG, University of Southern California <i>A New Era of Mathematical Optimization for Learning, Prediction, and Decision Making</i> Session Chair: Dr. Xiang ZHOU</p>
3:00pm - 3:30pm	<p>Invited Speaker Prof. Kwok-Leung TSUI, Virginia Tech, USA <i>Healthcare and Public Health Monitoring and Management</i> Session Chair: Dr. Lishuai LI</p>
3:30pm - 3:45pm	Coffee Break
3:45pm - 5:00pm	<ul style="list-style-type: none"> HKIDS Research Reviews - Early Career Research Grants (ECRG) Speakers: 1. Dr. Xiao QIAO, School of Data Science, City University of Hong Kong

	<ol style="list-style-type: none"> 2. Dr. Yu YANG, School of Data Science, City University of Hong Kong 3. Dr. Yining DONG, School of Data Science, City University of Hong Kong 4. Dr. Qing KE, School of Data Science, City University of Hong Kong 5. Dr. Xiangyu ZHAO, School of Data Science, City University of Hong Kong <p>Session Chair: Dr. Lishuai LI</p> <ul style="list-style-type: none"> • PhD Student Poster Session
5:00pm-5:05pm	Short Break
5:05pm - 5:55pm	<p>Panel Discussion <i>How will AI change our jobs and life?</i></p> <p>Panelists:</p> <p>Prof. Jong-shi PANG Prof. Xin YAO Prof. Minlie HUANG Prof. Kwok-Leung TSUI</p> <p>Moderator: Prof. S. Joe QIN</p>
5:55pm - 6:00pm	Closing of Day 1
6:15pm	Dinner Banquet (By Invitation Only)

31 May 2023 (Wed)

Time	Activity
9:00am - 9:30am	Registration
9:30am - 9:45am	Opening Remarks
9:45am - 10:45am	<p>Keynote Speaker Prof. David SIMCHI-LEVI, Massachusetts Institute of Technology <i>Improving Data-Driven Decision-Making by Integrating Online and Offline Learning</i> Session Chair: Prof. Liping LIANG</p>
10:45am - 11:00am	Coffee Break
11:00am - 12:00nn	<p>Keynote Speaker Dr. Lee George LAM, United Nations ESCAP Sustainable Business Network (ESBN), and Hong Kong Cyberport <i>Digital Hong Kong: Musings on Hong Kong's Digital Future</i> Session Chair: Prof. Hon Wing Billy CHIU</p>
12:00nn - 2:00pm	Lunch break
2:00pm - 3:00pm	<p>Keynote Speaker Prof. Yaochu JIN, Bielefeld University, Germany <i>Data-driven Evolutionary Optimization</i> Session Chair: Prof. Hon Wing Billy CHIU</p>

3:00pm - 4:00pm	<p>Keynote Speaker Prof. Yike GUO, The Hong Kong University of Science and Technology <i>Generative AI and AI for Art</i> Session Chair: Prof. Haoran XIE</p>
4:00pm - 4:10pm	Coffee Break
4:10pm - 5:00pm	<p>Panel Discussion <i>Data Science and Artificial Intelligence for STEAM Education</i> Panelists: Prof. Yaochu JIN Prof. David SIMCHI-LEVI Dr. Zijun ZHANG Moderator: Prof. Jiaxing SHEN</p>
5:00pm - 5:45pm	<p>Research Sharing <i>Least Squares Generative Adversarial Networks: Theories and Applications</i> Speaker: Prof. Haoran XIE, Department of Computing and Decision Sciences, Lingnan University <i>Systemic Risk of SIFIs in the Post-2008 Great Financial Crisis Era: A Tail-Risk Network Approach</i> Speaker: Prof. Tao SUN, Department of Finance and Insurance, Lingnan University <i>How Firm-customer Digital Interactions Are Recreating the Customer Experience</i> Speaker: Prof. Yu Ho CHUNG, Department of Marketing and International Business, Lingnan University Session Chair: Prof. Kwan Yeung Kester LEE</p>
5:45pm - 5:50pm	Closing Remarks
6:30pm	Dinner Banquet (By Invitation Only)

ABSTRACT

Multi-objective Ensemble Learning and Its Applications

Speaker: Prof. Xin YAO

Chair Professor of Department of Computer Science and Engineering
Research Institute of Trustworthy Autonomous Systems
Southern University of Science and Technology (SUSTech)
Shenzhen, China

Abstract: Most, if not all, machine learning problems are defined by a single loss function. Yet the vast majority of those loss functions have two or more terms summed together through hyper-parameters. A closer examination of those loss functions reveals that there are in essence two or more conflicting objectives that a loss function tries to minimise, e.g., accuracy and regularisation. This talk formulates machine learning as a multi-objective problem, instead of trying to combine different objectives into a single loss function through a weighted sum. While the weighted sum approach is simpler, it does require additional time and effort to tune hyper-parameters (weights). The talk describes how existing multi-objective evolutionary algorithms could be used as multi-objective learning algorithms in multi-objective learning. The natural link between multi-objective learning and ensemble learning will be pointed out. Selected examples of multi-objective learning in different domains will be discussed. It is argued that multi-objective learning can be an effective approach towards achieving different trade-off in various practical learning scenarios.

Chair: Dr. Zijun Zhang, City University of Hong Kong

The New Paradigm of Natural Language Generation: Non Autoregressive Generation Theories and Models

Speaker: Prof. Minlie HUANG

Tenured Associate Professor
Department of Computer Science, Institute for Artificial Intelligence
Tsinghua University

Abstract: Generative AIs have been advanced very much recently. The success of chatGPT and GPT4 has impacted the society very much. In this talk the speaker will share his thoughts and experiences on generative AI models and applications, and talk about the new challenges and opportunities with large scale language models.

Chair: Dr. Xiangyu ZHAO, City University of Hong Kong

Conversational AI, Generative AI, ChatGPT, GPTx and our Future

Speaker: Prof. Helen MENG

Patrick Huen Wing Ming Professor
of Systems Engineering and Engineering Management
The Chinese University of Hong Kong, China

Abstract: The recent, rapid advancements in ChatGPT and related AI technologies have captured the world's attention. This talk will begin by sharing some of our research in Conversational AI, which allows human-machine interactions using natural language. We will then cover an overview of Generative AI, the field to which ChatGPT belongs, where AI technologies can generate new content. We will cover aspects of natural language processing; regarding issues related to ethics and safety in the development of these technologies. Finally, we will explore how these technologies will impact the future of work, in terms of both risks and opportunities.

Chair: Dr. Qi WU, City University of Hong Kong

A New Era of Mathematical Optimization for Learning, Prediction, and Decision Making

Speaker: Prof. Jong-shi PANG

Epstein Family Chair and Distinguished Professor, and
Department of Industrial and Systems Engineering
University of Southern California, USA

Abstract: The past few decades have witnessed an explosion of interest in the use of mathematical optimization methods for problems in machine learning, statistical prediction, and data science. Throughout this period, convex programming has been the main computational tool for solving the optimization problems in these practical domains. This talk makes the case that this "approach of convenience" is vastly inadequate in rigorously addressing advanced problems where nontraditional functional features, most notably, nonconvexity and nondifferentiability, are pervasive and optimality of solutions is an un-attainable ideal. For these problems, size is not the only concern; instead, the ability to recognize and rigorously treat the mathematical complexity of the shell of big data ought to be prioritized without compromising computations. Often ignored, the latter aspect of data science should be the direction of future

research, which necessitates a redirected formulation of the mathematical models of the underlying data problems for their faithful abstractions and the realization that computational methods can at best obtain approximate stationary solutions of the resulting optimization problems. This re-imagined paradigm defines the new era of mathematical optimization that is the main topic of our keynote presentation.

Chair: Dr. Xiang ZHOU, City University of Hong Kong

Healthcare and Public Health Monitoring and Management

Speaker: Prof. Kwok-Leung TSUI

Professor
Grado Department of Industrial and Systems Engineering
Virginia Polytechnic Institute and State University, Blacksburg, VA, USA

Abstract: Due to the advancement of computation power, sensor technologies, and data collection tools, the research on healthcare and public health monitoring and management has been evolved over the past several decades under different names among various application domains, such as statistical process control (SPC), process monitoring, health surveillance, prognostics and health management (PHM), personalized medicine, etc. There are tremendous opportunities in interdisciplinary research on health monitoring and management through integration of SPC, system informatics, data analytics, PHM, and personalized health management. In this talk we will present our views and experiences in the related research. In particular, we will focus on research on healthcare and public health surveillance and forecasting.

Chair: Dr. Lishuai LI, City University of Hong Kong

Improving Data-Driven Decision-Making by Integrating Online and Offline Learning

Speaker: Prof. David SIMCHI-LEVI

Professor of Engineering System
Massachusetts Institute of Technology, USA

Abstract: Machine learning is playing increasingly important roles in decision making, with key applications ranging from dynamic pricing and recommendation systems to personalized

medicine and clinical trials. While supervised machine learning traditionally excels at making predictions based on i.i.d. offline data, many modern decision-making tasks require making sequential decisions based on data collected online. Such discrepancy gives rise to important challenges of bridging offline supervised learning and online interactive learning to unlock the full potential of data-driven decision making.

In this talk, we consider the challenge of reducing difficult online decision-making problems to well-understood offline supervised learning problems. Focusing on contextual bandits, a core class of online decision-making problems, we present the first optimal and efficient reduction from contextual bandits to offline regression. A remarkable consequence of our results is that advances in offline regression immediately translate to contextual bandits, statistically and computationally. We illustrate the advantages of our results through new guarantees in complex operational environments and experiments on real-world datasets. We also discuss the extensions of our results to more challenging setups, including reinforcement learning in large state spaces.

Chair: Prof. Liping LIANG, Lingnan University

Digital Hong Kong: Musings on Hong Kong's Digital Future

Speaker: Dr. George LAM

United Nations ESCAP Sustainable Business Network (ESBN);
Former Chairman, Hong Kong Cyberport

Synopsis/outline:

(1) Current status of the digital transformation of Hong Kong

(2) Challenges and opportunities

- Not just a smart city
- e-Government
- New Finance
- Seamless border crossing
- Digital infrastructure
- Talent development - the Chief Data Officer etc
- Risk capital and smart money
- Strategic investments
- Data governance
- Synergy with "Digital China"
- Law reforms and regulatory developments
- Tokenization and Hong Kong's competitive advantages
- The carbon value chain - enabling green transformation

- The new tale of two cities of the Digital Era - Shenzhen and Hong Kong
- (3) Hong Kong's Digital Future - seizing opportunities arising from the Greater Bay Area (GBA) and the Belt and Road markets and beyond ("Hong Kong Global")

Chair: Prof. Hon Wing Billy CHIU, Lingnan University

Data-driven Evolutionary Optimization

Speaker: Prof. Yaochu JIN

A. v. Humboldt Professor for AI
Bielefeld University, Germany

Abstract: This talk presents an overview of state-of-the-art methodologies for data-driven evolutionary optimization. On the basis of a brief introduction to the main challenges in evolutionary optimization of complex systems, I will elaborate on recently developed algorithms for handling data paucity in black-box optimization with the help of Bayesian optimization and advanced machine learning algorithms, including ensemble learning, deep learning and transfer learning. Finally, privacy preservation in data-driven optimization is addressed based on federated learning and differential privacy before I conclude the presentation.

Chair: Prof. Hon Wing Billy CHIU, Lingnan University

Generative AI and AI for Art

Speaker: Prof. Yike GUO

Provost
Chair Professor in the Department of Computer Science and Engineering
The Hong Kong University of Science and Technology, China

Abstract: Generative AI and AI for art are two exciting and rapidly evolving fields that are revolutionizing the way we create and experience art. Generative AI techniques allow us to create new and unique content, including images, music, and text, that would be impossible to produce by hand. AI for art, on the other hand, is focused on using AI to enhance and augment human creativity in the artistic process. In this talk, we will explore the latest developments in these fields and the ways in which they are transforming the art world. We will also discuss the ethical and societal implications of these technologies and their impact on the future of art.

Chair: Prof. Haoran XIE, Lingnan University

Least Squares Generative Adversarial Networks: Theories and Applications

Speaker: Prof. Haoran XIE

Associate Professor
Department of Computing and Decision Sciences
Lingnan University, China

Abstract: Unsupervised learning with generative adversarial networks (GANs) has proven hugely successful. Regular GANs hypothesize the discriminator as a classifier with the sigmoid cross-entropy loss function. However, we found that this loss function may lead to the vanishing gradients problem during the learning process. To overcome this problem, we propose the Least Squares Generative Adversarial Networks (LSGANs), which adopt the least squares loss function for the discriminator. There are two benefits of LSGANs over regular GANs. First, LSGANs can generate higher-quality images than regular GANs. Second, LSGANs perform more stable during the learning process. We evaluate LSGANs on LSUN and CIFAR-10 datasets, and the experimental results show that the images generated by LSGANs are of better quality than those generated by regular GANs. In addition, the proposed LSGANs can be employed in domain-specific applications like data augmentation and image processing.

Chair: Prof. Kwan Yeung Kester LEE, Lingnan University

Systemic Risk of SIFIs in the Post-2008 Great Financial Crisis Era: A Tail-Risk Network Approach

Speaker: Prof. Tao SUN

Associate Professor
Department of Finance and Insurance
Lingnan University, China

Abstract: We examine the systemic risk of 61 SIFIs (i.e., 33 G-SIB and 28 IAIG) between 2010 and 2023. We estimate SIFI's CoVaR using a single index model with LASSO variable selection and construct a set of tail risk network-based systemic risk measures for SIFIs. The results show that two shocks (COVID-19 Pandemic in 2020 and Russia – Ukraine crisis in 2022) imposed significant risks to SIFIs. However, the recent failures of Credit Suisse and US regional banks do not significantly affect the SIFI's systemic risk. We also find that the systemic risk of G-SIB Grangerly cause the systemic risk of IAIG, but not vice versa. Our findings have important implications. I.e., the financial system in the post-GFC era may be vulnerable to unforeseen

uncertainties, such as pandemics and geopolitical risk. And the financial system could be more resilient to the uncertainty associated with SIFIs that are deemed as “Too-Important-To-Fail.”

Chair: Prof. Kwan Yeung Kester LEE, Lingnan University

How Firm-customer digital interactions are recreating the customer experience

Speaker: Prof. Yu Ho Sebastian CHUNG

Assistant Professor
Department of Marketing and International Business
Lingnan University, China

Abstract: In this study, we focus on the evolving role of digital connections between customers and firms throughout all stages of customer journeys. Recent technological advancement allows firms to collect, analyze, and manage vast amounts of consumer information (e.g., digital footprints and personal preferences) throughout multiple touchpoints and interactions. The capability of big data analytics enables firms to provide highly personalized, time-sensitive, and localized communication messages and marketing offers to customers. The customer perceived benefits of tailored product offerings come with the costs of privacy concerns of the disclosure of personalized information. We explored how the customer perceived benefits of brand personalization and privacy calculus may interact and recreate the customer experience.

Chair: Prof. Kwan Yeung Kester LEE, Lingnan University

DSAI-2023 ORGANIZING COMMITTEE

Name	Position	Affiliation
S. Joe QIN	Chair of Organizing Committee	City University of Hong Kong
Mingming LENG	Chair of Organizing Committee	Lingnan University
Zijun ZHANG	Coordinator of the Committee	City University of Hong Kong
Haoran XIE	Coordinator of the Committee	Lingnan University
Jun WANG	Organizing Committee Member	City University of Hong Kong
Jonathan ZHU	Organizing Committee Member	City University of Hong Kong
Lishuai LI	Organizing Committee Member	City University of Hong Kong
Qi WU	Organizing Committee Member	City University of Hong Kong
Qingpeng ZHANG	Organizing Committee Member	City University of Hong Kong
Xiang ZHOU	Organizing Committee Member	City University of Hong Kong
Xiangyu ZHAO	Organizing Committee Member	City University of Hong Kong
Man Leung WONG	Organizing Committee Member	Lingnan University
Li Ping LIANG	Organizing Committee Member	Lingnan University
Ling PENG	Organizing Committee Member	Lingnan University
Hon Wing Billy CHIU	Organizing Committee Member	Lingnan University
Jiaxing SHEN	Organizing Committee Member	Lingnan University
Kwan Yeung Kester LEE	Organizing Committee Member	Lingnan University

BIOGRAPHY AND PHOTO

KEYNOTE SPEAKERS



Yike GUO

Prof. Guo Yike is Provost of the Hong Kong University of Science and Technology and Chair Professor in the Department of Computer Science and Engineering. He became Professor of Computing Science at the Department of Computing of Imperial College London in 2002 and Professor Emeritus since 2023.

A world-leading computer scientist, Prof. Guo has steered major AI and data science projects both in Hong Kong and internationally, particularly in the United Kingdom and continental Europe. Most recently, he is working as the principal investigator of the research project “Building Platform Technologies for Symbiotic Creativity in Hong Kong”, which was awarded funding of HK\$52.83 million by the Hong Kong Research Grants Council (RGC)’s Theme-based Research Scheme in 2021. It was the first time RGC had allocated a major grant to an art-tech project.

Prior to joining HKUST, Prof Guo served as Vice-President (Research and Development) of the Hong Kong Baptist University and was the founding Director of the Data Science Institute at Imperial College, which is one of the six Imperial College Global Challenge Institutes. He is also a Fellow of the Royal Academy of Engineering (FREng), the Academia Europaea (MAE), the Hong Kong Academy of Engineering Sciences (FHKEng), the Institute of Electrical and Electronics Engineers (FIEEE), the British Computer Society (FBCS), and the Society for Chinese Intelligence (FCAAI).

Yaochu JIN

Professor Yaochu Jin is a Distinguished Chair, Professor in Computational Intelligence and Head of the Nature Inspired Computing and Engineering (NICE) Group, Department of Computer Science, University of Surrey, Guildford, Surrey, UK. He was a "Finland Distinguished Professor" at University of Jyväskylä, Finland, "Changjiang Distinguished Professor" at Northeastern University, China, and Visiting Professor at Donghua University, China.



Professor Jin is the Editor-in-Chief of the IEEE Transactions on Cognitive and Developmental Systems, and Editor-in-Chief of Springer's free Open Access Journal Complex & Intelligent Systems. He is a Fellow of IEEE.

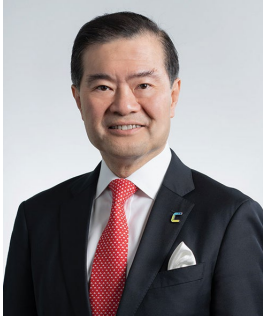
He received the BSc, MSc and PhD degrees, all in automatic control from Zhejiang University, China and the Dr.-Ing. degree from Ruhr-University Bochum, Germany. He was Principal Scientist and Group Leader at the Honda Research Institute Europe, Germany before he was appointed Chair in Computational Intelligence at University of Surrey in June 2010. He was Associate Lecturer, Lecturer and Associate Professor with the Electrical Engineering Department, Zhejiang University from 1991 to 1996. He has published over 200 journal and conference papers and was granted 9 US/EU/Japan patents. His papers have reported over 16,000 citations (according to Google Scholar). Since he joined Surrey in June 2010, he has successfully attracted research funds from EU FP7, UK EPSRC, Royal Society, and industries, including Honda, Bosch, Santander, HR Wallingford, Intellas UK Ltd, and Aero Optimal. He was also a member of the European GARTEUR Action Group "Surrogate-based Global Optimization Methods in Aerodynamic Design".

He was Vice President for Technical Activities of the IEEE Computational Intelligence Society (2014-2015) and a Distinguished Lecturer (2013-2015, 2017-2019) of IEEE. He was an AdCom member (2012-2013), a member of the Award Committee (2012-2013) and Chair (2011-2012) of the Intelligent Systems Applications Technical Committee of the IEEE Computational Intelligence Society. He was the founding General Co-Chair of the 2007, 2009, 2011 and 2013 IEEE Symposium on Computational Intelligence in Multi-Criterion Decision-Making, and the founding General Co-Chair of 2011 and 2013 IEEE Symposium on Computational Intelligence in Dynamic and Uncertain Environments. He is the General Chair of the 2012 IEEE Symposium on Computational Intelligence in Bioinformatics and Computational Biology. He has delivered over 14 Keynote speeches at international conferences on morphogenetic robotics and morphogenetic self-organizing systems, developmental neural computation, modeling and analysis of gene regulatory networks, evolutionary optimization in dynamic and uncertain environments and multi-objective machine learning.

He also serves as an Associate Editor of BioSystems, the IEEE Transactions on Evolutionary Computation, IEEE Transactions on Cybernetics, the IEEE Transactions on Nanobioscience, the Soft Computing Journal, and Natural Computing. He is an Editorial Board Member of the Evolutionary Computation Journal (since 2014). He is a past Associate Editor of the IEEE Transactions on Neural Networks and Learning Systems, the IEEE Transactions on Systems, man and Cybernetics, Part C: Applications and Reviews, and the IEEE Transactions on Control Systems Technology.

Professor Jin is a member of Peer Review College and Review Panelist of EPSRC, UK, a member of Computer Science Review Panel, Academy of Finland, an Evaluator/Panel member of EU FP7 FET / Human Brain Project, a Peer Reviewer of Italian Evaluation of Research Quality exercise (VQR 2004-2010), and a Grant reviewer for many funding agencies, including the Royal

Academy of Engineering (UK), the Levehulme Trust (UK), the Marsden Fund (New Zealand), Killam Fellowship Program (Canada), the Netherlands Organization for Scientific Research, Czech Science Foundation, Cyprus Research Promotion Fundation, FWF (Austria), and the European Science Foundation.



Lee George LAM, BBS, JP

A champion for sustainable development, digital transformation, innovation and technology, responsible investing and international cooperation, Dr. Lam is Chair of the United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP) Sustainable Business Network (ESBN). He has held several senior positions in banking and finance and the innovation and technology sector in Hong Kong and the Asia Pacific region and is the immediate past Chairman of Cyberport, Hong Kong's digital technology flagship and FinTech hub.

Also actively participating in public service and international cooperation, Dr. Lam is a member of the Governance Committee of the Hong Kong Growth Portfolio and the Development Bureau Common Spatial Data Advisory Committee of the Hong Kong Special Administrative Region Government, and Convenor of the Panel of Advisors on Building Management Disputes of the HKSAR Government Home Affairs Department. He is also a Hong Kong accounting advisory expert of the PRC Ministry of Finance, a member of the Consultative Committee on Guangdong-Hong Kong Co-operation (Guangzhou Nansha), a member of the Belt and Road and Greater Bay Area Committee of the Hong Kong Trade and Development Council, the Board of the Chinese General Chamber of Commerce, the Hong Kong Investor Relations Association Advisory Board and the Court of the City University of Hong Kong, President of Hong Kong-ASEAN Economic Cooperation Foundation, Chairman of the Innovation and Technology Committee of the Belt and Road General Chamber of Commerce, Vice Chairman of Pacific Basin Economic Council, and Chairman of the Permanent Commission on Economic and Financial Issues of the World Union of Small and Medium Enterprises. He was a member of the Committee on Innovation, Technology and Re-Industrialization and the Sir Murray MacLehose Trust Fund Investment Advisory Committee, and a Part-time Member of the Central Policy Unit, of the HKSAR Government.

Dr. Lam holds a BSc in sciences and mathematics, an MSc in systems science and an MBA from the University of Ottawa in Canada, a post-graduate diploma in public administration from Carleton University in Canada, a post-graduate diploma in English and Hong Kong Law and an LLB (Hons) in law from Manchester Metropolitan University in the UK, a LLM in law from the University of Wolverhampton in the UK, a PCLL in law from the City University of Hong Kong, a Certificate in Professional Accountancy from the Chinese University of Hong Kong SCS, an MPA and a PhD from the University of Hong Kong.

A former member of the Hong Kong Bar, Dr. Lam is a Solicitor of the High Court of Hong Kong, an Accredited Mediator of the Centre for Effective Dispute Resolution (CEDR), a Fellow of Certified Management Accountants (CMA) Australia, the Hong Kong Institute of Arbitrators, the Hong Kong Institute of Directors and the Institute of Corporate Directors Malaysia, an Honorary Fellow of Certified Public Accountants (CPA) Australia, the Hong Kong Institute of Facility Management and the University of Hong Kong School of Professional and Continuing Education, an International Affiliate of the Hong Kong Institute of Certified Public Accountants, and a Distinguished Fellow of the Hong Kong Innovative Technology Development Association. Dr. Lam received the Director of the Year Award in 2013 and 2019, respectively, from the Hong Kong Institute of Directors (he was then a director of Hong Kong Education City and Chairman of Hong Kong Cyberport) and the FinTech Achievement Award (Iconic Star) in 2022 from the Institute of Financial Technologists of Asia (IFTA).

Jong-shi PANG

Elected a member of the National Academy of Engineering in February 2021 and appointed a Distinguished Professor in April 2023, Jong-Shi Pang joined the University of Southern California as the Epstein Family Chair and Professor of Industrial and Systems Engineering in August 2013. Prior to this position, he was the Caterpillar Professor and Head of the Department of Industrial and Enterprise Systems Engineering at the University of Illinois at Urbana-Champaign for six years between 2007 and 2013. He held the position of the Margaret A. Darrin Distinguished Professor in Applied Mathematics in the Department of Mathematical Sciences and was a Professor of Decision Sciences and Engineering Systems at Rensselaer Polytechnic Institute from 2003 to 2007. He was a Professor in the Department of Mathematical Sciences at the Johns Hopkins University from 1987 to 2003, an Associate Professor and then Professor in the School of Management from 1982 to 1987 at the University of Texas at Dallas, and an Assistant and then an Associate Professor in the Graduate School of Industrial Administration at Carnegie-Mellon University from 1977 to 1982. During 1999 and 2001 (full time) and 2002 (part-time), he was a Program Director in the Division of Mathematical Sciences at the National Science Foundation. Professor Pang has served as the Department Academic Advisor of the Department of Mathematics at the Hong Kong Polytechnic University. He has given many distinguished lectures at universities worldwide and plenary lectures at international conferences.





David SIMCHI-LEVI

David Simchi-Levi is a Professor of Engineering Systems at MIT and serves as the head of the MIT Data Science Lab. He is considered one of the premier thought leaders in supply chain management and business analytics.

His Ph.D. students have accepted faculty positions in leading academic institutes including U. of California Berkeley, Carnegie Mellon U., Columbia U., Cornell U., Duke U., Georgia Tech, Harvard U., U. of Illinois Urbana-Champaign, U. of Michigan, Purdue U. and Virginia Tech.

Professor Simchi-Levi is the current Editor-in-Chief of *Management Science*, one of the two flagship journals of INFORMS. He served as the Editor-in-Chief for *Operations Research* (2006-2012), the other flagship journal of INFORMS and for *Naval Research Logistics* (2003-2005).

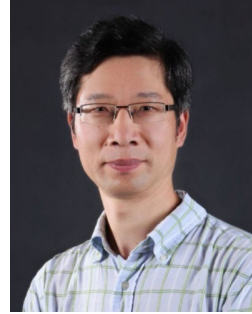
In 2023, he was elected a member of the National Academy of Engineering. In 2020, he was awarded the prestigious INFORMS Impact Prize for playing a leading role in developing and disseminating a new highly impactful paradigm for the identification and mitigation of risks in global supply chains.

He is an INFORMS Fellow and MSOM Distinguished Fellow and the recipient of the 2020 INFORMS Koopman Award given to an outstanding publication in military operations research; Ford Motor Company 2015 Engineering Excellence Award; 2014 INFORMS Daniel H. Wagner Prize for Excellence in Operations Research Practice; 2014 INFORMS Revenue Management and Pricing Section Practice Award; and 2009 INFORMS Revenue Management and Pricing Section Prize.

He was the founder of LogicTools which provided software solutions and professional services for supply chain optimization. LogicTools became part of IBM in 2009. In 2012 he co-founded OPS Rules, an operations analytics consulting company. The company became part of Accenture in 2016. In 2014, he co-founded Opalytics, a cloud analytics platform company focusing on operations and supply chain decisions. The company became part of the Accenture Applied Intelligence in 2018.

Xin YAO

Xin Yao is a Chair Professor of Computer Science at the Southern University of Science and Technology, Shenzhen, China, and a part-time Professor of Computer Science at the University of Birmingham, UK. His major research interests include evolutionary computation, ensemble learning and search-based software engineering. Recently, he is very interested in AI ethics, especially fairness in machine learning. He is an IEEE fellow, a former (2014-15) president of IEEE Computational Intelligence Society (CIS) and a former (20003-08) Editor-in-Chief of IEEE Transactions on Evolutionary Computation. His research 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 at conferences. He received a Royal Society Wolfson Research Merit Award in 2012, the IEEE CIS Evolutionary Computation Pioneer Award in 2013, and the 2020 IEEE Frank Rosenblatt Award.



OPENING REMARK SPEAKERS



Dong SUN, JP

Professor Sun Dong grew up in Beijing. He studied his doctorate degree in Hong Kong in 1994 and pursued further studies overseas. After his return to Hong Kong in 2000, he joined the City University of Hong Kong (CityU) as professor and started a high-tech company. Prior to his appointment as Secretary for Innovation, Technology and Industry, Professor Sun was CityU's Head and Chair Professor of Department of Biomedical Engineering, and Director of Center for Robotics and Automation.

Professor Sun is currently Fellow of the Canadian Academy of Engineering in Canada, Member of the European Academy of Sciences and Arts, Fellow of the International Academy of Medical and Biological Engineering, and Fellow of Institute of Electrical and Electronic Engineers (IEEE) in the USA. He has been committed in promoting higher education and frontline scientific research in Hong Kong for more than 20 years, nurturing for Hong Kong many talents in the field of innovation and technology. He was a Legislative Council Member from January to June 2022.

Freddy BOEY

Professor Freddy Boey was previously Deputy President (Innovation & Enterprise) at the National University of Singapore from January 2018 to December 2022, Provost (January 2011 – December 2017) and Chair of the School of Materials Science and Engineering (January 2004 – December 2010) at the Nanyang Technological University.



As the School Chair of the new school which started in 2000, he transformed the school into a powerhouse of Materials Science in the world in research and education, ranking 6th in QS world subject ranking and 2nd in US News & World Report world ranking in Materials Science by 2016, with an outstanding reputation for generating start up technologies that can be commercialised. The school has continued to be ranked in the top three globally in Materials Science in recent years.

As Provost of the University, he went on to propel the university from 74th in the 2011 QS World University Rankings to 11th and top in Asia by 2017.

As Deputy President in the National University of Singapore, he transformed the university's efforts in deep technology commercialisation, increasing the number of deep tech startups by 4X in the first three years, through the Graduate Research Innovation Program (GRIP), making it Singapore's foremost deep tech start up program.

He was conferred Singapore's highest Scientific Award, the President's Science & Technology Medal for lifetime achievement, and the prestigious Imperial College London Faculty of Medicine Fellow award, both in 2013, for his biomedical research achievements. His research team also won the 2014 Singapore President's Technology Award for using nanostructures with a novel drug delivery approach to combat blindness from glaucoma. As Provost, he built Singapore's second Undergraduate Medical School, partnering with Imperial College London, for which he received the 2016 Singapore National Day Public Administration Gold Medal. He has also been conferred Honorary Doctorate from Loughborough University, and Honorary professorships from the University of Indonesia, Nanjing Postal and Telecom University and Nanjing Technological University.



Leonard K CHENG, BBS, JP

Professor Leonard K Cheng became President of Lingnan University of Hong Kong in September 2013. Prior to joining Lingnan University, he served as Dean of the School of Business and Management of the Hong Kong University of Science and Technology (HKUST Business School) from 2009 to 2013.

Professor Cheng graduated with a first-class honours Bachelor of Social Sciences degree in economics from The Chinese University of Hong Kong in 1975, and was awarded an MA and a PhD in economics by the University of California, Berkeley, in 1977 and 1980, respectively. After teaching at the University of Florida for 12 years, he joined HKUST in 1992 as one of the founding members of the University, where he served as Head of Economics, Associate Dean and Director of PhD and MBA programmes of the HKUST Business School. The School launched the first inter-continental joint EMBA Programme in Asia with the Kellogg School of Management of Northwestern University in 1997, and the programme was ranked the best in the world by the Financial Times for four consecutive years from 2009 to 2012. In addition, the School's own full-time MBA programme was ranked by the Financial Times among the world's top 10 for four consecutive years from 2010 to 2013.

Professor Cheng's research interests include applied game theory, market structure, currency crisis, international trade and investment, technological innovation and imitation, China's inward and outward foreign direct investment, and national security protectionism. He has published papers in many leading academic journals in economics, and has served as an associate editor of the Journal of International Economics and Pacific Economic Review.

Dedicated to serving the public, Professor Cheng has been an adviser to many organisations locally and regionally, including membership on the Broadcasting Authority (which later became part of the Communications Authority), the Provisional Minimum Wage Commission, Economic Development Commission, Competition Commission, Independent Commission on

Remuneration for Members of the Executive Council and the Legislature, and Officials under the Political Appointment System of the HKSAR, a Non-Executive Director of the Securities and Futures Commission (SFC) and Chairman of SFC's Investor Education Centre. Currently, he is a member of the Independent Commission on Remuneration for Members of the District Councils of the HKSAR.

Professor Cheng has the vision to distinguish Lingnan's liberal arts education with the best of Chinese and Western cultures. He hopes to make Lingnan the preferred university for students who wish to get a whole-person education in a closely-knit and supportive environment. With a broad-based curriculum, a residential campus, an integrated living and learning environment, as well as substantial extra-curricular programmes such as international exchanges, internships and community services, Lingnan is well positioned to become a premier liberal arts university in Asia.

FORUM CO-CHAIRS

S. Joe QIN

Dr. S. Joe Qin obtained his B.S. and M.S. degrees in Automatic Control from Tsinghua University in Beijing, China, in 1984 and 1987, respectively, and his Ph.D. degree in Chemical Engineering from University of Maryland at College Park in 1992. He is currently President-Designate of Lingnan University in Hong Kong, Dean and Chair Professor of the School of Data Science, City University of Hong Kong. In his prior career he worked as the Fluor Professor at the Viterbi School of Engineering of the University of Southern California, Professor at the University of Texas at Austin, Presidential Chair Professor at the Chinese University of Hong Kong, Shenzhen, and Principal Engineer at Emerson Process Management.



Dr. Qin is a Fellow of the U.S. National Academy of Inventors, the International Federation of Automatic Control (IFAC), AIChE, and IEEE. He is the recipient of the 2022 CAST Computing in Chemical Engineering Award by the American Institute of Chemical Engineers (AIChE), 2022 IEEE CSS Transition to Practice Award, the U.S. National Science Foundation CAREER Award, the 2011 Northrop Grumman Best Teaching award at Viterbi School of Engineering, the DuPont Young Professor Award, Halliburton/Brown & Root Young Faculty Excellence Award, NSF-China Outstanding Young Investigator Award, and recipient of the IFAC Best Paper Prize for a model predictive control paper published in *Control Engineering Practice*. He has served as Senior Editor of *Journal of Process Control*, Editor of *Control Engineering Practice*, Member of the Editorial Board for *Journal of Chemometrics*, and Associate Editor for several other journals. He has published over 400 international journal papers, book chapters, conference papers and presentations. His h-indices for Web of Science, SCOPUS, and Google Scholar are 66, 73, and 83, respectively. He received over 37,000 Google Scholar citations. Dr. Qin's research interests include data science and analytics, machine learning, process monitoring, model predictive control, system identification, smart manufacturing, smart cities, and predictive health maintenance.



Mingming LENG

Mingming Leng is the Chair Professor of Computing and Decision Sciences and the Dean of the Faculty of Business. He also served the University as the Head of Department of Computing and Decision Sciences in August 2014--August 2017, the Founding Director of the Doctor of Business Administration in Global Digital Economy and Governance Programme (January--August 2021), and the Founding Director of the Master of Science Programme in eBusiness and Supply Chain management at Lingnan University (August 2015--August 2017).

Professor Leng holds a Ph.D. degree in Management Science/System from McMaster University's DeGroote School of Business, Canada. His research interests are centered on game theory (with a focus on cooperative game theory), operations and supply chain management, and interface between operations and other disciplines.

Professor Leng has published a number of papers in top-tier or highly-respected journals such as Management Science, Operations Research, Production and Operations Management, Naval Research Logistics, IIE Transactions, and others. Moreover, he is a member in the Editorial Review Board of Production and Operations Management and an Associate Editor of INFOR: Information Systems and Operational Research. In addition to academic experiences, he has five years working experience in industry.

INVITED SPEAKERS

Minlie HUANG

Minlie Huang, Tenured Associate Professor of Tsinghua University, awarded as Distinguished Young Scholars of National Science Foundation. He is the deputy director of Intelligent Technology and System Laboratory of the Department of Computer Science of Tsinghua University, the deputy director of the Natural Language Generation and Intelligent Writing Committee of the Chinese Information Processing Society, the secretary-general of the CCF Academic Committee, and the founder of Beijing Lingxin Intelligent Technology Co., Ltd. His main research interests include natural



language generation, dialogue systems, and machine reading comprehension. He has won the first prize of the Wu Wenjun Artificial Intelligence Science and Technology Progress Award of the Chinese Association for Artificial Intelligence, the Hanwang Youth Innovation Award of the Chinese Information Processing Society, and the Alibaba Innovation Cooperation Research Award. He has published more than 100 papers in international top conferences or journals, obtained more than 10 patent authorizations, won the best papers or nominations (IJCAI, ACL, SIGDIAL, etc.) in international mainstream conferences for 5 times, and wrote the first book on natural language generation in China named “Modern Natural Language Generation”. He has developed dialogue system platforms ConvLab and ConvLab2, the first Chinese open-domain dialogue pre-training model CDial-GPT, Chinese open-source dialogue model EVA, and the first emotional chatbot Emohaa. He served as the editorial board member of top journals TNNLS, TACL and CL, and the area chair of ACL/EMNLP for more than 10 times.



Helen MENG

Professor Helen Meng is Patrick Huen Wing Ming Professor of Systems Engineering and Engineering Management at CUHK. Her research interests lie in AI-enabled speech and language technologies. She has been Founding Director of the Centre for Perceptual and Interactive Intelligence since 2020, which is a CUHK-led InnoHK Centre on AI located at the Hong Kong Science Park. In 2019, she was awarded the first Hong Kong Research Grant Council’s Theme-based Research Grant in the field of AI, which supports her

interdisciplinary team to develop AI-enabled spoken language technologies to screen and diagnose neurocognitive disorder. Since 2019, Prof. Meng has been Co-PI and Chair of Curriculum Development of the CUHK Jockey Club AI for the Future Project and developed the first comprehensive pre-tertiary AI education curriculum in Hong Kong. Prof. Meng received all her degrees from MIT. She founded the Microsoft-

CUHK Joint Laboratory for Human-Centric Computing and Interface Technologies in 2005, which was recognized as a Ministry of Education of China Key Laboratory in 2008. She served as Associate Dean of Engineering (Research) between 2006 and 2010 and the first female Chairman of CUHK's Department of Systems Engineering and Engineering Management between 2012 and 2018. In 2006, she founded the Tsinghua-CUHK Joint Research Center for Media Sciences, Technologies, and Systems. In 2007, she helped establish the Laboratory for Ambient Intelligence and Multimodal Systems in the Chinese Academy of Sciences Shenzhen Institute of Advanced Integration Technology through its joint initiative with CUHK. In 2010, she facilitated the establishment of the Tsinghua-MIT-CUHK Joint Research Center for Theoretical Computer Science. In 2012-2013, she served as a member of the CUHK Shenzhen Academic Planning Subcommittee and became an early contributor towards curriculum design for CUHK-Shenzhen, where she has been an Adjunct Professor ever since. In 2013, she helped establish the CUHK Stanley Ho Big Data Decision Analytics Research Center and serves as its Director. Prof. Meng has delivered numerous plenary, keynote, and invited talks at flagship conferences, including Grand Challenge Speaker of the COLING 2022, Plenary Speaker of IEEE ICASSP 2021, Keynote Speaker of ACL 2021, and Plenary Speaker of INTERSPEECH 2018. She and her research team have received various awards; including the First Prize of the international DialDoc@ACL 2022 Challenge, SciTech Challenge 2021 Open Category Championship, 2016 Microsoft Research Outstanding Collaborator Award (one of 32 academics worldwide), and 2016 IBM Faculty Award, 2015 ISCA Distinguished Lecturer, and various best paper awards. Prof. Meng is a Fellow of the IEEE, ISCA, HKIE, and HKCS. She has served in various government appointments, including the recent appointment into the HKSAR Government's Digital Economy Development Committee, chaired by the Financial Secretary, where she also serves as Convenor of the Talent Cultivation Sub-group.

Kwok-Leung TSUI

Kwok-Leung Tsui received the Ph.D. degree in statistics from the University of Wisconsin–Madison, Madison, WI, USA, in 1986. He was a Chair Professor with the Department of Systems Engineering and Engineering Management, School of Data Science, City University of Hong Kong, Hong Kong, from 2009 to 2020. He was a Professor and an Associate Professor with the School of Industrial and Systems Engineering, Georgia Institute of Technology, Atlanta, GA, USA, from 1990 to 2011. He was a member of Technical Staff with the Quality Assurance Center, AT&T Bell Laboratories, Holmdel, NJ, USA, from 1986 to 1990. He is currently a Professor with the Grado Department of



Industrial and Systems Engineering, Virginia Polytechnic Institute and State University, Blacksburg, VA, USA. His current research interests include data science and data analytics, surveillance in healthcare and public health, personalized health monitoring, prognostics and systems health management, calibration and validation of computer models, process control and monitoring, and robust design and Taguchi methods. Dr. Tsui is a fellow of the American Statistical Association, American Society for Quality, International Society of Engineering Asset Management, and Hong Kong Institution of Engineers; elected council member of the International Statistical Institute; and U.S. representative to the ISO Technical Committee on Statistical Methods. He was a recipient of the National Science Foundation Young Investigator Award. He was the Chair of the INFORMS Section on Quality, Statistics, and Reliability and the Founding Chair of the INFORMS Section on Data Mining.

RESEARCH SHARING SPEAKERS



Yu Ho Sebastian CHUNG

Dr. Yuho Chung is an assistant professor of Department of Marketing and International Business, Lingnan University. His research seeks to measure and quantify three related issues (i) the impact of mobile and Internet technologies on industries and markets transformed by shared infrastructure, (ii) the mechanisms of communication and the information flow of emerging online mediums (e.g., new platforms and user-generated content), and (iii) the business impact of digital advertising and promotional strategies. His work has been published in international journals, including *Journal of Marketing*, *Journal of Academy of Marketing Science*, *International Journal of Research in Marketing*, *Naval Research Logistics*, *Journal of Business Research*.

Marketing, Naval Research Logistics, Journal of Business Research.

Yining DONG

Yining Dong received her Ph.D. degree in Electrical Engineering from University of Southern California in 2016, and her B.Eng. degree in Electronic Engineering from Tsinghua University in 2011. Before joining CityU, she was a post-doc in Electrical Engineering at Stanford University.

Her research interests are process data analytics, high-dimensional time series modeling, statistical machine learning, smart manufacturing and new material design.



Qing KE

Dr. KE Qing worked as a postdoc at Syracuse University School of Information Studies and at Northeastern University Network Science Institute, after completing his PhD in Informatics at Indiana University in 2018.

Xiao QIAO

Xiao Qiao is an assistant professor in the School of Data Science at the City University of Hong Kong and a member of the Hong Kong Institute for Data Science. He is on the editorial board of the Journal of Portfolio Management and his research has been featured by Forbes and Institutional Investor. Prior to CityU, Xiao worked in the investment management industry where he helped to create several award-winning investment products. He was a co-founder at Paraconic Technologies, an associate director at SummerHaven Investment Management, and an analyst at Morgan Stanley. Xiao received a B.S. in Economics from the Wharton School and a B.S. in Engineering from the School of Engineering and Applied Sciences at the University of Pennsylvania. He received a PhD in Finance from the University of Chicago.

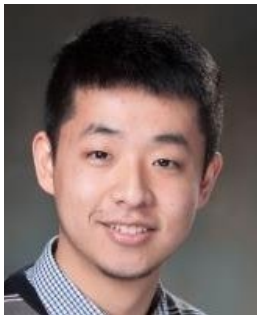
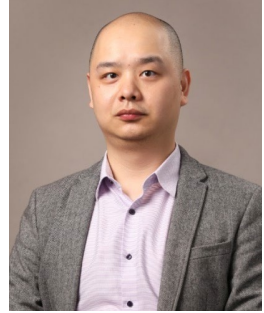


Tao SUN

Prof. Tao Sun is an Associate Professor in the Department of Finance and Insurance at Lingnan University. He received his Ph.D. degree in Risk Management and Insurance from Temple University. His current research interests include systemic risk and financial stability, insurance economics, risk modeling, mortality/longevity risk management, and corporate risk management. Dr. Sun has publications in top tier journals in risk management, insurance and actuarial science, including the Journal of Risk and Insurance, and Insurance: Mathematics and Economics. He serves as referee for the Journal of Risk and Insurance, Insurance: Mathematics and Economics, Risk Management and Insurance Review, the North American Actuarial Journal, and the Journal of Insurance Issues.

Haoran XIE

Prof. Haoran Xie received his Ph.D. in Computer Science from the City University of Hong Kong and his Ed.D. in Digital Learning from the University of Bristol. He is currently an associate professor at the Department of Computing and Decision Sciences, Lingnan University, Hong Kong. His research interests include artificial intelligence, big data analytics, and educational technology. He has 345 publications, including 190 journals like IEEE TPAMI, TKDE, TAFFC, and TCYB and top-tier conferences like AAAI, IJCAI, ACL, EMNLP, ICCV, and CVPR. He is the Editor-in-Chief of the Natural Language Processing Journal, Computers & Education: Artificial Intelligence, and Computers & Education: X Reality. His Google Scholar citation count is 10,553, with an h-index of 40 and an i10-index of 114. He has been included in the list of The World's Top 2% Scientists by Stanford University, is a senior member of ACM and IEEE, and has been honored with 20 research awards.



Yu YANG

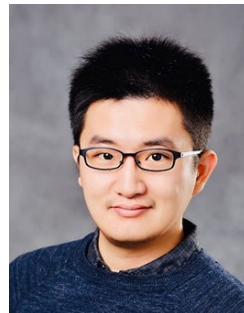
Dr. Yu YANG is an Assistant Professor with the School of Data Science at City University of Hong Kong. He obtained Ph.D. in Computing Science from Simon Fraser University, where he was supervised by Prof. Jian Pei. Before that, he obtained his M.E. from University of Science and Technology of China in 2013, and his B.E. from Hefei University of Technology in 2010, both in Computer Science. Dr. Yang's research interests include Mining data of combinatorial structures, such as graphs, sets, and sequences; Big data algorithms; and Data-Driven Operations Management

Prizes/Honours

- 2019 Governor General's Gold Medal The Governor General of Canada
- 2022 Silver Award Geneva International Exhibition of Inventions

Xiangyu ZHAO

Xiangyu Zhao is a tenure-track assistant professor of Data Science at City University of Hong Kong (CityU). Prior to CityU, he completed his Ph.D. under the advisory of Prof. Jiliang Tang at DSE Lab of MSU, his M.S. under the advisory of Prof. Enhong Chen at BDAA Lab of USTC, and his B.Eng. under the advisory of Prof. Ming Tang and Prof. Tao Zhou at BigData Center of UESTC. His research has been awarded ICDM'22 and ICDM'21 Best-ranked Papers, Global Top 100 Chinese New Stars in AI, CCF-Tencent Open Fund, Criteo Faculty Research Award, Bytedance Research Collaboration Award, MSU Dissertation Fellowship, and nomination for Joint AAAI/ACM SIGAI Doctoral Dissertation Award. He serves as top data science conference (senior) program committee members, session chairs and journal reviewers. He serves as the organizers of DRL4KDD and DRL4IR workshops at KDD'19, WWW'21 and SIGIR'20/21/22, and a lead tutor at WWW'21/22 and IJCAI'21. He also serves as the founding academic committee member of MLNLP, the largest Chinese AI community with millions of members/followers. The models and algorithms from his research have been launched in the online system of many companies, such as Amazon, Google, Facebook, LinkedIn, Criteo, Lyft, JD.com, Kuaishou, Tencent, and Bytedance.



COMMITTEE MEMBERS AND SESSION CHAIRS



Hon Wing Billy CHIU

Billy's research interests include representation learning and lexical-semantic in biomedical data. His current research investigates the applications of representation learning models for downstream Natural Language Processing (NLP) tasks. His work has been published in the Journal of BMC bioinformatics, the Journal of biomedical semantics, and conferences, including the International Conference on Language Resources and Evaluation and the Association for Computational Linguistics.

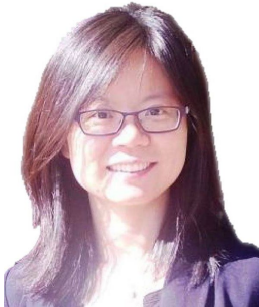
Kwan Yeung Kester LEE

Lee Kwan Yeung was born in Hong Kong in 1990. He received the B.S. degree in computing science and Ph.D. degree in computing science and engineering from the Chinese University of Hong Kong, in 2013 and 2020, respectively. He is currently working as a postdoctoral fellow with the functional title of Research Assistance Professor in the Department of Computing and Decision Sciences in Lingnan University and is an academic member of the LEO Dr David P. Chan Institute of Data Science in Lingnan University. His research interests include bioinformatics, machine learning, artificial intelligence, and deep learning.



Mingming LENG

Please refer to [P.24](#) for biography and photo.



Lishuai LI

Dr. Lishuai Li is an Associate Professor in the School of Data Science at City University of Hong Kong. Her research is in the interdisciplinary field of intelligent transportation systems and data science. She has developed analytical methods (ranging from data analytics to Artificial Intelligence) using large-scale operational data for airline safety management and operations improvement, air traffic management, and health monitoring of train systems. More recently, she is working on traffic management problems and infrastructural challenges in drone delivery service and urban air mobility. She has been recognized

as one of the Top 2% of the World's Most Cited Scholars by the Stanford-Elsevier indicator (Single Year) in 2022.

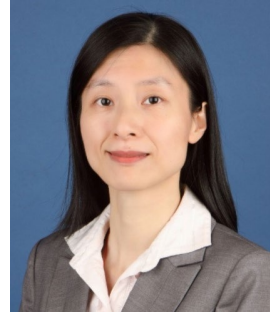
Dr. Li serves on the Editorial Advisory Board of "Transportation Research Part C: Emerging Technologies", and the Editorial Board of "Aerospace" and "International Journal of Reliability and Safety". She is a guest editor for "Frontiers in Physics" on the Research Topic: Machine Learning in Social Complex Systems. She is the Vice Chair (Chair Elect) of the Aviation Applications Section at the Institute for Operations Research and the Management Sciences (INFORMS). She has been involved in the Applied Machine Learning Days (AMLDD) conference at EPFL as an invited speaker in 2020 and as a co-organizer in 2022, both in the "AI & Aviation" Track.

Dr. Li received her Ph.D. and M.Sc. from the Department of Aeronautics and Astronautics at Massachusetts Institute of Technology (MIT), and her B.Eng. in Aircraft Design and Engineering

from Fudan University. She worked at McKisney & Company's San Francisco Office as an Associate Consultant (2013 - 2014) and taught in the Faculty of Aerospace Engineering at Delft University of Technology in the Netherlands (2021 - 2022). She holds a private pilot license since 2012.

Li Ping LIANG

Liping Liang is a Professor in the Department of Computing and Decision Sciences and the Director of the Hong Kong Institute of Business Studies at Lingnan University. She also served the University as the Director of the Doctor of Business Administration in Global Digital Economy and Governance (DBA in GDEG) Programme (August 2021 - August 2022), the Founding Associate Director of the DBA in GDEG Programme (January 2021 - August 2021), and the Associate Director of the Master of Science in eBusiness and Supply Chain Management Programme (August 2015 - August 2016).



Professor Liang holds a Ph.D. degree in Management Science from the Sauder School of Business, the University of British Columbia, Canada. Her main research interests include operations and supply chain management, incentive mechanism design, cooperative game theory, and the interface between operations and other disciplines.

Professor Liang has published papers in top-tier or highly-respected journals such as Management Science, Manufacturing & Service Operations Management, Production and Operations Management, Naval Research Logistics, IIE Transactions, European Journal of Operational Research, and others. She has eight-year working experience in the telecommunications industry and has been engaged in several consulting projects related to operations management.



Ling PENG

Ling Peng, Ph.D., is Associate Professor in the Department of Marketing and International Business at Lingnan University, Hong Kong. Professor Peng received her education from Renmin University (BEng), Sun Yat-sen University (MEcon) and the University of Alberta (PhD). Her recent research sought to measure and quantify the welfare impact of internet technologies on industries and markets. Specifically, she used psychometrics, big data analytics, and machine learning methods to investigate emerging marketing phenomena on the internet, the mechanism of communication and information flow of online platforms, and user-generated content. Her

works have appeared in the Journal of Marketing, Journal of Academy of Marketing Science, Marketing Letters, Journal of Business Research, Tourism Management, Journal of Product Innovation Management, Journal of Consumer Marketing, among others.

S. Joe QIN

Please refer to [P.23](#) for biography and photo.

Jiaxing SHEN

Jiaxing Shen is an Assistant Professor with the Department of Computing and Decision Sciences at Lingnan University. He received the B.E. degree in Software Engineering from Jilin University in 2014, and the Ph.D. degree in Computer Science from the Hong Kong Polytechnic University in 2019. He was a visiting scholar at the Media Lab, Massachusetts Institute of Technology in 2017. His research theme is Human Dynamics which aims to understand human behavior and provide actionable insights via cross-disciplinary approaches. Under the theme, his research interests include mobile computing, data mining, and IoT systems.

His research has been published in top-tier journals such as TMC, TOIS, IMMUT, and TKDE. He was awarded conference best paper twice including one from INFOCOM 2020.



Jun WANG

Jun Wang is a Chair Professor of Computational Intelligence in the Department of Computer Science and School of Data Science at City University of Hong Kong. Prior to this position, he held various academic positions at Dalian University of Technology, Case Western Reserve University, University of North Dakota, and Chinese University of Hong Kong. He also held various part-time visiting positions at US Air Force Armstrong Laboratory, RIKEN Brain Science Institute, Huazhong University of Science and Technology, Dalian University of Technology, and Shanghai Jiao Tong University

as a Changjiang Chair Professor. He received a B.S. degree in electrical engineering and an M.S. degree in systems engineering from Dalian University of Technology, Dalian, China. He received his Ph.D. degree in systems engineering from Case Western Reserve University, Cleveland, Ohio, USA. His current research interests include neural networks and their applications. He published about 280 journal papers, 15 book chapters, 11 edited books, and numerous conference papers in these areas. He is the Editor-in-Chief of the IEEE Transactions on Cybernetics. He also served

as an Associate Editor of the IEEE Transactions on Neural Networks (1999-2009), IEEE Transactions on Cybernetics and its predecessor (2003-2013), and IEEE Transactions on Systems, Man, and Cybernetics – Part C (2002–2005), as a member of the editorial advisory board of International Journal of Neural Systems (2006-2013), and a member of the editorial board of Neural Networks (2012-2014) as a guest editor of special issues of European Journal of Operational Research (1996), International Journal of Neural Systems (2007), Neurocomputing (2008, 2014, 2016), and International Journal of Fuzzy Systems (2010, 2011). He was an organizer of several international conferences such as the General Chair of the 13th International Conference on Neural Information Processing (2006) and the 2008 IEEE World Congress on Computational Intelligence, and a Program Chair of the IEEE International Conference on Systems, Man, and Cybernetics (2012). He has been an IEEE Computational Intelligence Society Distinguished Lecturer (2010-2012, 2014-2016). In addition, he served as President of Asia Pacific Neural Network Assembly (APNNA) in 2006 and many organizations such as IEEE Fellow Committee (2011-2012); IEEE Computational Intelligence Society Awards Committee (2008, 2012, 2014), IEEE Systems, Man, and Cybernetics Society Board of Directors (2013-2015), He is an IEEE Life Fellow, IAPR Fellow, foreign member of Academia Europaea, and a recipient of an IEEE Transactions on Neural Networks Outstanding Paper Award and APNNA Outstanding Achievement Award in 2011, Natural Science Awards from Shanghai Municipal Government (2009) and Ministry of Education of China (2011), and Neural Networks Pioneer Award from IEEE Computational Intelligence Society (2014), among others.

Man Leung WONG

Prof. Man Leung Wong is the head and professor of the Department of Computing and Decision Sciences at Lingnan University, Tuen Mun, Hong Kong. His research interests are artificial intelligence, data mining, machine learning, evolutionary computation, fuzzy logic, and approximate reasoning. His articles on these topics have been published in Management Science, Decision Support Systems, IEEE Transactions on Evolutionary Computation, IEEE Transactions on Pattern Analysis and Machine Intelligence, Information Sciences, Evolutionary Computation, Knowledge Based Systems, IEEE Transactions on Systems, Man, and Cybernetic, IEEE Intelligent Systems, IEEE Engineering in Medicine and Biology, Expert Systems with Applications, Journal of the American Society for Information Science and Technology, Fuzzy Sets and Systems, International Journal of Approximate Reasoning, etc. He received his B.Sc., M.Phil., and Ph.D. in computer science from the Chinese University of Hong Kong.





Qi WU

Qi WU is an associate professor in the School of Data Science of City University of Hong Kong. His research interests center on financial engineering and quantitative finance. His earlier work include term structure modeling, stochastic volatility, tail risk analysis, and fixed income markets. He is currently researching semi-parametric risk forecast, negative interest rate models, pricing and matching in sharing platforms, and data-driven models for credit risk.

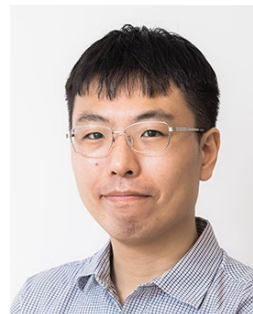
His past industrial experience includes developing pricing models for managing correlation exposure between sovereign credit risk and currency risk at Lehman Brothers; pricing & risk-managing portfolios of interest rate derivative consisting of vanilla swaptions and callable exotics in a market-marking capacity at UBS; as well as methodology team lead of fixed income analytics for central clearing of USD cash securities and lightly structured debt instruments at the world largest clearing house DTCC. Most recently, he engages with leading global fintech companies on developing data-driven financial services.

Haoran XIE

Please refer to [P.30](#) for biography and photo.

Qingpeng ZHANG

Qingpeng Zhang is an Associate Professor with the School of Data Science at CityU. He received the B.S. degree in Automation from Huazhong University of Science and Technology in 2009, and the M.S. and the Ph.D. degrees in Systems and Industrial Engineering (minor in Management Information Systems) from The University of Arizona, in 2011 and 2012, respectively. Prior to joining CityU, he worked as a Postdoctoral Research Associate with The Tetherless World Constellation, Department of Computer Science at Rensselaer Polytechnic Institute.



He holds honorary positions with the Department of Pharmacology and Pharmacy and the JC Centre for Suicide Research and Prevention of the University of Hong Kong and the South Carolina Smartstate Center for Health Care Quality. He has been on the commissioned teams combating the COVID-19 pandemic by the Ministry of Science and Technology of China, Chinese Academy of Sciences and Chinese Academy of Engineering.

He is a senior member of IEEE, and an associate/academic editor for IEEE TITS, IEEE TCSS, Journal of Alzheimer's Disease (2021), and PLoS ONE. He was a theme issue editor for

Philosophical Transactions of the Royal Society A: Mathematical and Engineering Sciences and the guest editor for a number of other journals. He is on the executive committee of the International Society of Digital Health, Hong Kong Society of Behavior Health, Systems Engineering Society of China, and the Hospital IoT Branch of China Association of Medical Equipment.

His research interests include healthcare data analytics, medical informatics, AI in drug discovery and network science. His research has been published in leading journals such as Nature Human Behaviour and Nature Communications, as well as featured in press such as The Washington Post, The New York Times, New York Public Radio, The Guardian and Ming Pao.



Zijun ZHANG

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Xiangyu ZHAO

Please refer to [P.31](#) for biography and photo.

Xiang ZHOU

Dr Xiang Zhou received his BSc from Peking University and PhD from Princeton University. Before joining City University in 2012, he worked as a research associate at Princeton University and Brown University. His major research area is the study of rare event. His research interests include the development and analysis of algorithms for transitions in nonlinear stochastic dynamical systems, the efficient Monte Carlo simulation of rare events, the numerical methods for saddle point and the exploration of high dimensional non-convex energy landscapes in physical models and machine learning models. His research results have turned into peer-reviewed papers in SIAM journals,



Journal of Computational Physics, Journal of Chemical Physics, Nonlinearity and Annals of Applied Probability, etc.



Jonathan ZHU

Prof. Jonathan ZHU teaches new media theory (diffusion, use, and impact), quantitative methods (survey, experiment, content analysis, statistical analysis), and new technologies (Internet, multimedia, and database). Most recently, Professor Jonathan ZHU teaches a university general education (GE) course on social network analysis for media, business and technological applications.

Prof. Jonathan ZHU current research projects involve growth of online social networks, sustainability of social media, diffusion and use of social computing, internationalization of communication research, among others.

Prof. Jonathan ZHU coordinates a Web Mining Lab, in which a group of postdoctoral fellows, doctoral students, research assistants, and occasional visitors carry out interdisciplinary projects.

A list of his publications in SCI/SSCI journals, along with citation and collaboration information, is compiled by ResearcherID.com.