

2021 KAFE-SKKU International Conference on Finance



Host_

Korean Association of Financial Engineering
and Sungkyunkwan University Economics Brain Korea 21 Program

Date_

December 20, 2021

Venue_

Dasan Hall of Economics, Sungkyunkwan University (Seoul Campus)

Hosted by_



한국금융공학회
The Korean Association of Financial Engineering



SUNGKYUNKWAN
UNIVERSITY(SKKU)



성균관대학교
SUNGKYUNKWAN UNIVERSITY(SKKU)
디지털시대 한국경제의 건전성장을 주도하는 창의인재양성 교육연구단



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Welcoming Message

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On December 20, 2021, the Korean Association of Financial Engineering (KAFE) and Sungkyunkwan University (SKKU) Economics Brain Korea (BK) 21 Program (“Education & Research Program for Sound Growth of the Korean Economy in the Digital Era”) co-host 2021 KAFE-SKKU International Conference on Finance. We invite prominent scholars here, the 600th Anniversary Hall of Sungkyunkwan University, the first national university with 623 years of glorious history and shining tradition. As the program chair and organizer of this conference, we would like to welcome all the participants to the world-renowned city of Seoul. More than 50 high-quality research papers in the field of finance and economics are presented in 10 academic sessions.

The editors of high-ranking SSCI (Web of Science: Social Sciences Citation Index™) journals join as our keynote speakers: Robert I. Webb (Editor-in-chief, Journal of Futures Markets), Jonathan A. Batten (Editor-in-chief, Journal of International Financial Markets, Institutions & Money), Rose C. Liao (Editor-in-chief, Emerging Markets Review), and Robert W. Vivian (Editor, Investment Analysts Journal). We also invite world-class scholars as our speakers: Jiro Akahori (Editor-in-chief, Asia-Pacific Financial Markets), Joseph K.W. Fung (Hong Kong Baptist University), Qian Han (Xiamen University), Hyeng Keun Koo (Ajou University), and Sooyoung Song (Chung-Ang University).

This conference is held in collaboration with our long-standing partner, the Japanese Association of Financial Econometrics and Engineering (JAFEE). We sincerely appreciate the steadfast support and relentless participation of all KAFE fellows and SKKU Economics BK 21 fellows. Without their support, this conference would not have reached its current status. Thank you all.

Warm regards,

Program Chair

Chunkwang PARK (President, KAFE)

Sunghyun KIM (Director, SKKU Economics BK21 Program)

Doojin RYU (Vice President, KAFE; Professor, SKKU)





Program of the Conference

December 20 (Monday), 2021 (Korea Standard Time – KST)	
8:30 ~ 8:50	Registration (Dasan Hall of Economics, Sungkyunkwan University)
8:50 ~ 9:00	Opening Remarks https://skku-ict.webex.com/meet/webextemp61
	Prof. Chunkwang Park (Program Chair)
	Prof. Sunghyun Kim (Program Chair)
9:00 ~ 11:50	Academic Sessions 1, 2, 3, and 4
12:00 ~ 13:00	Conference Lunch
13:00 ~ 14:50	Academic Sessions 5, 6, and 7
15:00 ~ 16:50	Academic Sessions 8, 9, and 10
16:50 ~ 17:00	Closing Remarks http://skku-ict.webex.com/meet/webextemp65
	Prof. Yeongsuk Cho (Organizing Committee Chair)
	Prof. Doojin Ryu (Program Chair & Review Committee Chair)
17:00 ~	Discussions and Activities

Directions to SKKU: <https://www.skku.edu/eng/About/campusinfo/location.do>

Campus Map: <https://www.skku.edu/eng/About/campusinfo/location.do>





Session 1 (9:00–11:50)_ Keynote Session I

Chair: Doojin Ryu (Sungkyunkwan University)

Webex Link: <http://skku-ict.webex.com/meet/webextemp61>

Author	Title
Robert I. Webb* (Univ. of Virginia, USA)	Predatory trading, tail risk, and retail investors
Jonathan A. Batten* (RMIT Univ., Australia)	Insider trading and market manipulation
Joseph K.W. Fung* (Hong Kong Baptist Univ.)	The impact of monetary regime on the underpricing cost of Hong Kong IPOs
Hyeng Keun Koo* (Ajou Univ.) Constantinos Kardaras (London School of Economics, UK) Johannes Ruf (London School of Economics, UK)	Estimation of growth in fund models
Sooyoung Song* (Chung-Ang Univ.)	Global minimum tax rate: A presage or an auspice of ESG tax transparency for the institutional investors



Session 2 (9:00–11:50)_ Financial Markets

Chair: You-Tay Lee (PuKyong National University)

Webex Link: <http://skku-ict.webex.com/meet/webextemp62>

Author	Title
Jinyoung Yu* (Sungkyunkwan Univ.) Robert I. Webb (Univ. of Virginia, USA) Doojin Ryu (Sungkyunkwan Univ.)	Adverse selection around monetary policy announcements: Who pays the liquidity cost?
Mohammadhossein Lashkaripour* (Univ. of Calgary, Canada)	Sustainable investment and the Covid-19 market crash
Shunsuke Nakamura* (Hosei Univ., Japan) Kazuhiro Yasuda (Hosei Univ., Japan)	Estimation of temporary market impact and permanent market impact in the Japanese stock market
Qingjie Du*(Hong Kong Polytechnic Univ.)	Retail investor trading activities and the cross-section of option returns
Tsubasa Ito* (Hosei Univ., Japan) Kazuhiro Yasuda (Hosei Univ., Japan)	An optimal execution problem with market impact, transaction cost, and execution cost
Antonia Kirilova* (CUNEF Univ., Spain) Jianfeng Hu (Singapore Management Univ.) Seongkyu Gilbert Park (Hong Kong Polytechnic Univ.) Doojin Ryu (Sungkyunkwan Univ.)	Who profits from trading options?





Session 3 (9:00–11:50)_ Cryptocurrency, Derivatives, and Investments

Chair: Kyoung Jin Choi (University of Calgary)

Webex Link: <http://skku-ict.webex.com/meet/webextemp63>

Author	Title
Motahhareh Moravvej Hamedani* (Univ. of Calgary, Canada) Alfred Lehar (Univ. of Calgary, Canada)	Private settlement in Blockchain systems
Kyoung Jin Choi* (Univ. of Calgary, Canada) Minsuk Kwak (Hankuk Univ. of Foreign Studies)	Valuing real options with scale-dependent payoff
Davis Pham* (Auckland Univ. of Technology, New Zealand) Jose Da Fonseca (Auckland Univ. of Technology, New Zealand)	Has Bitcoin become respectable?
Makoto Shimoshimizu* (Tokyo Metropolitan Univ., Japan) Masamitsu Ohnishi (Osaka Univ., Japan)	Execution game in a Markovian environment
Daehan Kim* (Sungkyunkwan Univ.)	Bitcoin adoption and financial inclusion
Dylan Choi* (Mt. San Jacinto College, USA) Seoyun Choi (Kyung Hee Univ.)	The model institution of sustainable finance



Session 4 (9:00–11:50)_ Financial Engineering

Chair: Takanori Adachi (Tokyo Metropolitan University)

Webex Link: <http://skku-ict.webex.com/meet/webextemp64>

Author	Title
Takanori Adachi* (Tokyo Metropolitan Univ., Japan) Yusuke Naritomi (Tokyo Metropolitan Univ., Japan)	Discrete signature and its application to finance
Komi Edem Dawui* (World Bank, USA) Jose Da Fonseca (Auckland Univ. of Technology, New Zealand) Yannick Malevergne (Université Panthéon-Sorbonne, France)	A linear-rational multi-curve term structure model with stochastic spread
Jengei Hong* (Handong Univ.) Woosung Kim (Konkuk Univ.)	The combination approaches for machine learning-based automatic valuation models
Hokuto Ishii* (Chukyo Univ., Japan)	Yield curve factors and exchange rate predictions pre- and post-global financial crisis
Kieu Trang Vu* (Univ. of Wollongong, Australia) Maria Kim (Univ. of Wollongong, Australia) Sandy Suardi (Univ. of Wollongong, Australia)	Catastrophic natural disasters and firm-level corruption
Vu Huy Hoang* (Ritsumeikan Univ., Japan)	A new method in pricing warrant under the physical measure



Session 5 (13:00–14:50)_ Keynote Session II

Chair: Hogyu Jhang (Chungnam National University)

Webex Link: <http://skku-ict.webex.com/meet/webextemp61>

Author	Title
Jiro Akahori* (Ritsumeikan Univ., Japan)	Market simulator with Malliavin-Mancino's Fourier estimator
Qian Han* (Xiamen Univ., China)	Market call auction synchronization, or not? Another look at spot market liquidity and index futures trading
Rose C. Liao* (Rutgers Univ., USA) Gilberto Loureiro (Univ. of Minho, Portugal) Alvaro G. Taboada (Mississippi State Univ., USA)	Gender quotas and bank risk
Robert Vivian* (Univ. of Witwatersrand, South Africa)	The impact of the three waves of government expenditure on investment returns



Session 6 (13:00–14:50)_ Financial Economics

Chair: Pando Sohn (Dong-A University)

Webex Link: <http://skku-ict.webex.com/meet/webextemp62>

Author	Title
Jiri Havel* (Yonsei Univ.)	Exchange rate determination and capital flows: Does currency denomination matter?
Saewon Im* (Kyungpook National Univ.) Youn Seol (Kyungpook National Univ.) Soonhee Lee (Kyungpook National Univ.)	The effect of the Investigation New Drug (IND) application approval on CAR
Sangyup Choi* (Yonsei Univ.) Gabriele Ciminelli (OECD) Davide Furceri (International Monetary Fund)	Uncertainty and foreign capital inflows: Examining heterogeneity across types of flows and countries
Eunmo Yang* (Sungkyunkwan Univ.) Hojoong Bae (Korean Women's Development Institute) Doojin Ryu (Sungkyunkwan Univ.)	The effect of housing characteristics on savings of newlyweds
Seung Yong Yoo* (Yonsei Univ.) Sangyup Choi (Yonsei Univ.) Tim Willems (International Monetary Fund)	Revisiting the monetary transmission mechanism through an industry-level differential approach





Session 7 (13:00–14:50)_ Mathematical Finance

Chair: Jang Woo Lee (Pusan National University)

Webex Link: <http://skku-ict.webex.com/meet/webextemp63>

Author	Title
Riu Naito* (Hitotsubashi Univ., Japan) Toshihiro Yamada (Hitotsubashi Univ., Japan)	Deep learning-based higher-order discretization for nonlinear PDEs with application to finance
Yu Sobajima* (Ritsumeikan Univ., Japan)	Nisio semigroups on graphs and their asymptotics in view of applications to finance
Hyuncheul Lim* (Chonnam National Univ.)	Volatility surface using the Gaussian process regression
Naho Akiyama* (Hitotsubashi Univ., Japan) Toshihiro Yamada (Hitotsubashi Univ., Japan)	Semi closed-form Kusuoka type approximation for Bismut formula: An automatic differentiation method with application to delta hedging
Masaru Shintani* (Kyoto Univ., Japan) Ken Umeno (Kyoto Univ., Japan)	The cross-industry universal laws of exponential booking curves



Session 8 (15:00–16:50)_ Microeconomics and Financial Theory

Chair: Wooyoung Lim (Hong Kong University of Science and Technology)

Webex Link: <http://skku-ict.webex.com/meet/webextemp61>

Author	Title
Wooyoung Lim* (Hong Kong Univ. of Science and Technology) Dongkyu Chang (City Univ. of Hong Kong) Duk Gyoo Kim (Univ. of Mannheim, Germany)	Positive and negative selection in bargaining: An experiment
HanJoon Jung* (Tianjin Univ., China) Jaimie Lien (Chinese Univ. of Hong Kong) Jie Zheng (Tsinghua Univ., China)	Asymmetric contest over public commodities with two players
Daehong Min* (New York Univ. Abu Dhabi, UAE)	Screening for experiments
Dongryul Lee* (Sungshin Women's Univ.) Jonghwa Lee (Korea Institute for Defense Analyses)	Endogenous choice on impact function in group contest
Sunjin Kim* (Korea Energy Economics Institute) Eric Bahel (Virginia Tech, USA) Sudipta Sarangi (Virginia Tech, USA)	Weak players, strong players, and signed network formations



Session 9 (15:00–16:50)_ Financial Management

Chair: Jing (Maggie) Chen (Cardiff University)

Webex Link: <http://skku-ict.webex.com/meet/webextemp62>

Author	Title
Hae Jin Chung* (Sejong Univ.) Hogyu Jhang (Chungnam National Univ.)	The COVID-19 pandemic and the value of cash: Evidence from Korea
Chen Mengtao* (Zhejiang Univ., China) Xie Zhubin (Zhejiang Univ., China) Yang Dapeng (Central School of Administration, China)	Digital divide, credit rating and firm's performance: Evidence from China-listed companies
Jihae Yoo* (Hong Kong Polytechnic Univ.)	Information externality of paid-analysts
Young-Min Kim* (Kangwon National Univ.) Sei-Wan Kim (Ewha Womans Univ.)	Does old's income structure trigger aggregate equity demand?: Evidence of private pensions in US
Jing (Maggie) Chen* (Cardiff Univ., UK) Anqi Liu (Cardiff Univ., UK) Arman Eshraghi (Cardiff Univ., UK) Hossein Jahanshahloo (Cardiff Univ., UK)	Behaviour fingerprint of the Bitcoin market



Session 10 (15:00–17:00)_ Financial Econometrics and Stochastics

Chair: Yoshifumi Muroi (Tohoku University)

Webex Link: <http://skku-ict.webex.com/meet/webextemp63>

Author	Title
Yui Furuichi* (Ritsumeikan Univ., Japan) Kaori Okuma (QUICK, Japan)	Higher order deep solver of non-linear PDEs implied by a non-linear discrete Clark-Ocone formula
Yoshifumi Muroi*(Tohoku Univ., Japan) Ryota Saeki (Tohoku Univ., Japan) Shintaro Suda (Mitsubishi UFJ Trust Investment Technology Institute, Japan)	Binomial tree method for option pricing: Discrete Carr and Madan formula approach
Chuxin Ye* (Zhejiang Univ., China) Xingguo Luo (Zhejiang Univ., China) Libin Tao (Univ. of International Business and Economics, China)	Price monotonicity violations in stock market crash: Evidence from SSE 50 ETF options market
Kenji Dohi* (Ritsumeikan Univ., Japan) Jiro Akahori (Ritsumeikan Univ., Japan) Yoshihiro Ryu (Ritsumeikan Univ., Japan)	On square integral of Volterra type Gaussian processes
Sebastien Pierre* (Cardiff Univ., UK) Maggie Chen (Cardiff Univ., UK) Jonathan Thompson (Cardiff Univ., UK)	Processing of financial asset returns to neutralize bias in jump-detection statistics
Ruiqian Liu* (Zhejiang Univ. of Finance & Economics Dongfang College, China) Zheng Xu (Wright State Univ., USA) Liqin Fu (Zhejiang Univ. of Finance & Economics Dongfang College, China)	Study on the influence of foreign exchange reserve on the effectiveness of China's monetary policy based on structural vector autoregressive model





Program Chair

Chunkwang PARK	President, Korean Association of Financial Engineering
Sunghyun KIM	Dean, SKKU College of Economics
Doojin RYU	Vice President, KAFE; Professor, SKKU

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