Frontiers of Functional Data Analysis: Challenges and Opportunities in the Era of AI
(19 Aug 2024–13 Sep 2024)

Organizing Committee

Co-chairs

Alexander Aue
University of California at Davis

Ying Chen
National University of Singapore

Zhenhua Lin
National University of Singapore

Qiwei Yao
London School of Economics

Venue

IMS Auditorium
Institute for Mathematical Sciences
3 Prince George's Park Singapore 118402

Registration

https://tinyurl.com/IMSFrontiersFDAReg

For more information:
https://ims.nus.edu.sg/events/frontiers-of-functional-data-analysis-challenges-and-opportunities-in-the-era-of-ai/

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20 August – 10 September 2024

Wednesday, 21 August 2024

Time	Title	Speaker
0910–0925	Registration	
0925–0930	Opening Remarks	Organizers
0930–1030	Transfer Learning for Functional Data Analysis	Tony Cai *University of Pennsylvania, USA*
1030–1100	Coffee Break	
1100–1200	On the Modelling and Prediction of High-Dimensional Functional Time Series	Jinyuan Chang *Southwestern University of Finance and Economics, China*
1200–1400	Lunch Break	
1400–1500	Recovery of Time Labels for Noisy Dynamic Data	Wanjie Wang *National University of Singapore, Singapore*

Thursday, 22 August 2024

Time	Title	Speaker
0915–0930	Registration	
0930–1030	Group Factors in Single Stock Options	Maria Grith *Erasmus University Rotterdam, Netherlands*
1030–1100	Group Photo & Coffee Break	
1100–1200	Two-Sample Tests for Equal Distributions in Separable Metric Spaces: A Unified Semimetric-Based Approach	Jin-Ting Zhang *National University of Singapore, Singapore*

Tuesday, 27 August 2024

Time	Title	Speaker
0915–0930	Registration	
0930–1030	Modeling Distribution-Valued Random Trajectories With Optimal Transports	Hans-Georg Müller *University of California, Davis, USA*
1030–1100	Coffee Break	
1100–1200	FPCA with Diverging Dimensions: From Sparse to Dense Designs	Fang Yao *Peking University, China*

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Tuesday, 27 August 2024		
Time	**Title**	**Speaker**
1200–1400	Lunch Break	
1400–1500	FDA in the age of AI	Jane-Ling Wang *University of California, Davis, USA*

Wednesday, 28 August 2024		
Time	**Title**	**Speaker**
1045–1100	Registration	
1100–1200	High-Dimensional Hilbert-Schmidt Linear Regression for Hilbert Manifold Variables	Byeong Uk Park *Seoul National University, S.Korea*
1200–1400	Lunch Break	
1400–1500	Rolling-Without-Slipping Models for Manifold-Valued Functional Data	Karthik Bharath *University of Nottingham, UK*
1500–1530	Coffee Break	
1530–1630	Large-Scale Multiple Testing of Cross-Covariance Functions with Applications to Functional Network Models	Xinghao Qiao *The University of Hong Kong, Hong Kong SAR*
1800–2200	*Group Excursion to the Singapore Night Safari* 2-way transfer is provide: IMS-> Night Safari -> Park Avenue Rochester https://www.mandai.com/en/night-safari.html	

Thursday, 29 August 2024		
Time	**Title**	**Speaker**
0915–0930	Registration	
0930–1030	Blockwise Dynamic Selection of Smoothing Parameters in Density Estimation for Streaming Data	Aurore Delaigle *The University of Melbourne, Australia*
1030–1100	Coffee Break	
1100–1200	Neural Tangent Kernel in Implied Volatility Forecasting: A Nonlinear Functional Autoregression Approach	Hannah Lai *National University of Singapore, Singapore*
1200–1400	Lunch Reception at IMS	
1400–1500	*Distinguished Lecture Series in Statistics* Data Integration Via Analysis of Subspaces (DIVAS)	James Stephen Marron *University of North Carolina, USA*

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Thursday, 29 August 2024		
Time	**Title**	**Speaker**
1500	Group Photo	

Friday, 30 August 2024		
Time	**Title**	**Speaker**
0915–0930	Registration	
0930–1130	A Short Course on Functional Data Analysis (Part I)	Tailen Hsing *University of Michigan, USA*
1130–1400	Lunch Break	
1400–1600	A Short Course on Functional Data Analysis (Part II)	Tailen Hsing *University of Michigan, USA*

Thursday, 5 September 2024		
Time	**Title**	**Speaker**
0915–0930	Registration	
0930–1030	Robust Inverse Regression for Multivariate Elliptical Functional Data	Eftychia Solea *Queen Mary University of London, UK*
1030–1100	Coffee Break	
1100–1200	Manifold Learning: An Invitation to Data Science	Zhigang Yao *National University of Singapore, Singapore*
1200–1400	Lunch Break	
1400–1500	Estimating the spectral density of a function-valued spatial process	Tailen Hsing *University of Michigan, USA*

Friday, 6 September 2024		
Time	**Title**	**Speaker**
0915–0930	Registration	
0930–1030	Functional Data Analysis as Nonparametric ODEs	Giles Hooker *University of Pennsylvania, USA*
1030–1100	Coffee Break	
1100–1200	Robust Model Averaging Prediction of Longitudinal Response with Ultrahigh-dimensional Covariate	Jialiang Li *National University of Singapore, Singapore*

Monday, 9 September 2024		
Time	**Title**	**Speaker**
0915–0930	Registration	

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Monday, 9 September 2024		
Time	**Title**	**Speaker**
0930–1030		
1030–1100	Coffee Break	
1100–1200	Conditional Stochastic Interpolation for Generative Learning	Jian Huang *The Hong Kong Polytechnic University, Hong Kong SAR*

Tuesday, 10 September 2024		
Time	**Title**	**Speaker**
0915–0930	Registration	
0930–1130	Deep Generative Learning Leveraging Pretrained Large Models (Part I)	Jian Huang *The Hong Kong Polytechnic University, Hong Kong SAR*
1130–1400	Lunch Break	
1400–1600	Deep Generative Learning Leveraging Pretrained Large Models (Part II)	Jian Huang *The Hong Kong Polytechnic University, Hong Kong SAR*