

**Statistical Machine Learning for
High Dimensional Data
Workshop
(21–31 May 2024)**



Venue

IMS Auditorium

Institute for Mathematical Sciences

3 Prince George's Park

Singapore 118402

Organizing Committee

Co-Chairs

Jialiang Li

National University of Singapore

Wei-Yin Loh

University of Wisconsin - Madison

Miaoyan Wang

University of Wisconsin - Madison

Members

Cheng Li

National University of Singapore

Ke-Wei Huang

National University of Singapore

Jonathan Scarlett

National University of Singapore

Harold Soh

National University of Singapore

Wanjie Wang

National University of Singapore

Tuesday, 21 May 2024		
Time	Title	Speaker
0900–0925	Registration	
0925–0930	Opening Remarks	Programme Organizers
0930–1030	Federated Learning for Nonparametric Function Estimation: Framework and Optimality	Tony Cai <i>University of Pennsylvania</i>
1030–1045	Coffee Break	
1045–1145	Understanding the Benefits of Related Data	Samory Kpotufe <i>Columbia University</i>
1145–1400	Lunch Break	
1400–1500	Statistical Inference on Network Data: New Models and Algorithms	Emma Zhang <i>Emory University</i>
1500–1515	Coffee Break	
1530–1730		

Wednesday, 22 May 2024		
Time	Title	Speaker
IMS is closed as it is Vesak Day (Public Holiday).		
1500	Group Outing to Gardens By the Bay 1-way transfer is provided departing from Park Avenue Rochester.	

Thursday, 23 May 2024		
Time	Title	Speaker
0915–0930	Registration	
0930–1030	Rate Optimality and Phase Transition for User-Level Local Differential Privacy	Yi Yu <i>University of Warwick</i>
1030–1045	Coffee Break	
1045–1145	Online Policy Learning and Inference by Matrix Completion	Dong Xia <i>Hong Kong University of Science and Technology</i>
1145–1400	Lunch Break	
1400–1500	Generalization performance gaps between greedy and optimal regression trees in high dimensions	Yanshuo Tan <i>National University of Singapore</i>

Friday, 24 May 2024		
Time	Title	Speaker
0915–0930	Registration	
0930–1030	Generative models for high-dimensional statistical inference	Yao Xie <i>Georgia Institute of Technology</i>
1030–1045	Coffee Break	
1045–1145	High-order Singular Value Decomposition in Tensor Analysis	Anru Zhang <i>Duke University</i>

Friday, 24 May 2024		
Time	Title	Speaker
1145–1400	Lunch Break	
1400–1500	Estimation and Inference for Networks of Multi-Experiment Point Processes	Ali Shojaie <i>University of Washington</i>

Monday, 27 May 2024		
Time	Title	Speaker
0915–0930	Registration	
0930–1030	<i>Distinguished Lecture Series in Statistics</i> Inferences on Mixing Probabilities and Ranking in Mixed-Membership Models	Jianqing Fan <i>Princeton University</i>
1030–1045	Coffee Break	
1045–1145	Beyond Matrices: Nonparametric Tensor Estimation and Application	Miaoyan Wang <i>University of Wisconsin-Madison</i>
1145–1400	Lunch Break	
1400–1500	Nonparametric test of Missing Completely At Random	Thomas B. Berrett <i>University of Warwick</i>
1500–1515	Coffee break	
1515–1615	Transfer learning and applications in genomics	Hongzhe Li <i>University of Pennsylvania</i>

Tuesday, 28 May 2024		
Time	Title	Speaker
0915–0930	Registration	
0930–1030	Spectrum-Aware Debiasing: High-Dimensional Inference beyond sub-Gaussian Covariates with Applications to Principal Components Regression	Pragya Sur <i>Harvard University</i>
1030–1045	Coffee Break	
1045–1145	Log Concave Coupling for Sampling from Neural Net Posterior Distributions	Andrew Barron <i>Yale University</i>
1145–1400	<i>Lunch Reception at IMS</i>	
1400–1500	Fast and Powerful Minipatch Ensemble Learning for Discovery and Inference	Genevera Allen <i>Rice University</i>
1500–1515	Coffee Break	
1515–1615	Statistical inference for Black-Box parameters generating data, and the Laplacian Fiducial distribution	Yannis Yatracos <i>Cyprus University of Technology</i>

Wednesday, 29 May 2024		
Time	Title	Speaker
0915–0930	Registration	

Wednesday, 29 May 2024		
Time	Title	Speaker
0930–1030	Tensor Methods in High Dimensional Data Analysis: Opportunities and Challenges	Ming Yuan <i>Columbia University</i>
1030–1045	Coffee Break	
1045–1145	Generative Modeling and Generative Prior	Yuejie Chi <i>Carnegie Mellon University</i>
1145–1400	Lunch Break	
1400–1500	A Statistical Framework of Watermarks for Large Language Models: Pivot, Detection Efficiency and Optimal Rules	Xiang Li <i>University of Pennsylvania</i>
1500–1530	Coffee Break	
1530–1630	Group Outing to Gardens by the Bay 1-way transfer is provided departing from IMS.	

Thursday, 30 May 2024		
Time	Title	Speaker
0915–0930	Registration	
0930–1030	Surprising phenomena of interpolating solutions in high dimensions	Fanny Yang <i>ETH Zurich</i>
1030–1045	Coffee Break	
1045–1145	Recent Developments in High-Dimensional Estimation with Generative Priors	Jonathan Scarlett <i>National University of Singapore</i>
1145–1400	Lunch Break	
1400–1500	Denoising over network with application to partially observed epidemics	Olga Klopp <i>ESSEC Business School</i>
1500–1515	Coffee Break	
1515–1615	Frank-Wolfe-Type Methods for Minimizing Log-Homogenous Self-Concordant Barriers	Renbo Zhao <i>University of Iowa, USA</i>

Friday, 31 May 2024		
Time	Title	Speaker
0915–0930	Registration	
0930–1030	Central limit theorems for stochastic optimization	Zehua Lai <i>The University of Texas at Austin</i>
1030–1045	Coffee Break	
1045–1145	Learning from Aggregate Responses	Adel Javanmard <i>University of Southern California</i>

This schedule is accurate as of May 21, 2024 and subjected to changes.