

Algorithms and Foundations for Data Science (30 May 2022–10 Jun 2022)

ORGANIZING COMMITTEE

Co-Chairs

Yi Li
Nanyang Technological University

David P. Woodruff
Carnegie Mellon University



*[Registration](#) is required for this program.

Venue

Virtual: The details and link will be sent to you before the program commences after registration has been processed.



For more information: [Click here](#)

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All times are indicated in **GMT+8**.

For time zones conversion: [Click Here](#)

Tuesday, 31 May 2022		
Time (GMT +8)	Title	Speaker
2000	Session Chair: David P. Woodruff (Carnegie Mellon University)	
2000–2100	Differentially private CountSketch	Rasmus Pagh University of Copenhagen, Denmark
2100–2200	Sublinear time eigenvalue approximation via random sampling	Cameron Musco University of Massachusetts Amherst, USA
2200–2300	Randomized linear algebra for interior point methods	Petros Drineas Purdue University, USA
Wednesday, 01 June 2022		
Time (GMT +8)	Title	Speaker
0930	Session Chair: Yi Li (Nanyang Technological University)	
0930–1030	Optimal bounds for approximate counting	Jelani Nelson University of California, Berkeley, USA
1030–1130	Random matrix theory and modern machine learning	Mike W. Mahoney University of California, Berkeley, USA
1130–2100	<i>Session Break</i>	
2100	Session Chair: Christopher Musco (New York University)	
2100–2200	Collaborative learning with limited communication	Qin Zhang Indiana University Bloomington, USA
2200–2300	A guide to estimating entropy for the forgetful and impatient	Andrew McGregor University of Massachusetts Amherst, USA
2300–2305	Group Photo	IMS Zoom Host
2305–0005	Memory bounds for the experts problem	David P. Woodruff Carnegie Mellon University, USA

Thursday, 02 June 2022		
Time (GMT +8)	Title	Speaker
1030	Session Chair: Yi Li (Nanyang Technological University)	
1030–1130	TBA	Anna Gilbert Yale University, USA
1130–2000	<i>Session Break</i>	
2000	Session Chair: Cameron Musco (University of Massachusetts Amherst)	
2000–2100	Lower bounds for sparse oblivious subspace embeddings	Yi Li Nanyang Technological University, Singapore
2100–2200	Near-linear sample complexity for L_p polynomial regression	Samson Zhou Carnegie Mellon University, USA
2200–2300	Low-rank approximation with $(1/\epsilon)^{(1/3)}$ matrix-vector products	Ainesh Bakshi Carnegie Mellon University, USA
2300–2305	Group Photo	IMS Zoom Host
2305–0005	Coresets for decision trees of signals	Dan Feldman University of Haifa, Israel

Friday, 03 June 2022		
Time (GMT +8)	Title	Speaker
2000	Session Chair: Samson Zhou (Carnegie Mellon University)	
2000–2100	Factorial lower bounds for (almost) random order streams	Michael Kapralov EPFL, Switzerland
2100–2200	Massively parallel algorithms for maximal matching and edit distance	Mohammad Taghi Hajiaghayi University of Maryland, USA
2200–2300	New streaming algorithms for high-dimensional EMD and MST	Rajesh Jayaram Google Research NYC, USA

Monday, 06 June 2022		
Time (GMT +8)	Title	Speaker
2000	Session Chair: Chris Schwiegelshohn (Aarhus University)	
2000–2100	TBA	Ely Porat Bar-Ilan University, Israel
2100–2200	Private frequency estimation via projective geometry	Huy Le Nguyen Northeastern University, USA
2200–2300	Brooks' theorem in graph streams	Sepehr Assadi Rutgers University, USA

Tuesday, 07 June 2022		
Time (GMT +8)	Title	Speaker
2000	Session Chair: Sepehr Assadi (Rutgers University)	
2000–2100	Streaming facility location in high dimension	Shaofeng Jiang Peking University, China
2100–2200	Recent developments on coresets for clustering	Chris Schwiegelshohn Aarhus University, Denmark

Wednesday, 08 June 2022		
Time (GMT +8)	Title	Speaker
2000	Session Chair: Michael Kapralov (EPFL)	
2000–2100	Scalar and matrix Chernoff bounds from ℓ_∞ -independence	Rasmus Kyng ETH Zurich, Switzerland
2100–2200	Linear and sublinear time spectral density estimation	Christopher Musco New York University, USA
2200–2300	TBA	Eric Price University of Texas at Austin, USA