Caltech
Student-Faculty Programs

Computer Science

Session I

Room: **100 Powell-Booth**

1:00 - 1:20 PM	***Stuart C. Florescu***	Hardware-efficient generative quantum Eigensolver for ground state energy estimation	Alan Aspuru-Guzik *Professor of Chemistry and Computer Science, University of Toronto* Austin Cheng *Graduate Student in Chemistry, University of Toronto* R. Michael Alvarez *Flintridge Foundation Professor of Political and Computational Social Science*
1:20 - 1:40 PM	***Joseph W. Giambrone*** *James H. Milovich SURF Fellow*	Supporting teaching assistants in theoretical Computer Science courses	Adam Blank *Teaching Professor of Computing and Mathematical Sciences* Claire Ralph *Lecturer in Computing and Mathematical Sciences* Matthew Gherman *Hearst Postdoctoral Scholar Teaching Fellow in Mathematics*
1:40 - 2:00 PM	***Kyle T. Berkson*** *Dale and Suzanne Burger SURF Fellow*	Extending BayesRays for reliable spatial uncertainty in ill-posed inverse problems	Katherine L. Bouman *Associate Professor of Computing and Mathematical Sciences, Electrical Engineering, and Astronomy; Rosenberg Scholar; Investigator, Heritage Medical Research Institute* Brandon Zhao *Graduate Student in Computing and Mathematical Sciences*
2:00 - 2:20 PM	***Eric M. He***	Understanding the computational limits of bipartite graph alignment	Daniel Cullina *Assistant Professor of Electrical Engineering, Pennsylvania State University* Adam C. Wierman *Carl F Braun Professor of Computing and Mathematical Sciences*

2:20 - 2:40 PM	***Alex Chung***	Patterns of the Superbowl with robust L-pattern identification	Pablo A. Moscato *Professor of Computer Science, University of Newcastle Australia* Weijia Zhang *Lecturer in Data Science and Applied Statistics, University of Newcastle Australia* Matthew Gherman *Hearst Postdoctoral Scholar Teaching Fellow in Mathematics*
2:40 - 3:00 PM	***Kieran A. Hale***	Multivariate continued fraction regression with target derivatives	Pablo A. Moscato *Professor of Computer Science, University of Newcastle Australia* Andreas Heinecke *Senior Lecturer in Mathematics, University of Newcastle Australia* Adam C. Wierman *Carl F Braun Professor of Computing and Mathematical Sciences*
3:00 - 3:10 PM	***BREAK***		
3:10 - 3:30 PM	***Chigozirim N. Ifebi*** *Mellon Mays SURF Fellow*	Towards a digital twin: Applying ML methodologies to complete solar event data	Hillary Mushkin *Research Professor of Art and Design* Ashish Mahabal *Deputy Director, Caltech Center for Data-Driven Discovery*
3:30 - 3:50 PM	***Anya B. Mischel*** *Candace Rypisi SURF Fellow*	Data visualization for an exploratory sun emissions dashboard	Hillary Mushkin *Research Professor of Art and Design* Ashish Mahabal *Deputy Director, Caltech Center for Data-Driven Discovery* Allan Labrador *Staff Scientist in the Space Radiation Lab* Santiago Lombeyda *Senior Computational Scientist in the Center for Data-Driven Discovery*
3:50 - 4:10 PM	***Gavin N. John***	Using an expected volume heuristic to guide adaptive sampling of molecular dynamics simulations of proteins	Gregory Bowman *Louis Heyman University Professor of Bioengineering, University of Pennsylvania* Mitchell Guttman *Professor of Biology*

4:10 - 4:30 PM	***Duy H. Nguyen*** *Larson Scholar*	Functional flow matching for self-supervised representation learning on time series data	Anima Anandkumar *Bren Professor of Computing and Mathematical Sciences* Jiayun Wang *Postdoctoral Scholar Research Associate in Computing and Mathematical Sciences* Jiachen Yao *Graduate Student in Computing and Mathematical Sciences*
4:30 - 4:50 PM	***Jennifer A. Cruden***	Towards formal verification of neural networks in Lean	Anima Anandkumar *Bren Professor of Computing and Mathematical Sciences* Robert Joseph George *Graduate Student in Computing and Mathematical Sciences*