Palma London

Computing and Mathematical Sciences
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Research Interests

Mathematical Optimization; Distributed and Parallel Optimization Algorithms; Optimization in Networked Systems; Machine Learning.

Education

Ph.D. Computer Science, California Institute of Technology. 2017 – 2020
Advisor: Adam Wierman

M.S. Computer Science, California Institute of Technology. 2014 – 2017

B.S.E.E. Electrical Engineering, University of Washington. 2009 – 2014
Undergraduate Research Advisor: Maryam Fazel

B.S. Mathematics, University of Washington.

Employment

Postdoctoral Fellow 2020 – 2021
Cornell University, CS and ORIE Departments
TRIPODS Postdoctoral Fellow
This was a fully remote position.

Awards and Honors

Rising Stars in EECS, 2022

Amazon Fellowship in Artificial Intelligence, 2018 – 2019

NSF *Graduate Research Fellowship Program* (GRFP), 2014 – 2017

Ranked 1st in Caltech's Computer Science Ph.D. Qualification Exam, 2015

Outstanding Undergraduate Research Assistant Award, University of Washington, 2013

Mary Gates Research Scholarship, University of Washington, 2013

Research Experience

Research Assistant, California Institute of Technology. 2015 – 2020
Advisor: Adam Wierman

Undergraduate Research Assistant, University of Washington. 2012 – 2014
Maryam Fazel (EE), Daniela Witten (Statistics), Su-In Lee (CSE, Genome Sciences)

Undergraduate Research Position, University of Washington. 2011 – 2012
Advisor: Maryam Fazel (EE)

Publications

P. London, S. Vardi, R. Eghbali, A. Wierman. Black-box Solver Acceleration for Monotone Convex Programs. To appear in *Journal of Operations Research* (OR), 2022.

A. Chowdhury, G. Dexter, **P. London**, H. Avron, and P. Drineas. Faster Randomized Interior Point Methods for Tall/Wide Linear Programs. To appear in *Journal of Machine Learning Research* (JMLR), 2022.

A. Chowdhury, **P. London**, H. Avron, and P. Drineas. Speeding up Linear Programming using Randomized Linear Algebra. *Neural Information Processing Systems* (NeurIPS), 2020.

P. London, S. Vardi, A. Wierman. Logarithmic Communication for Distributed Optimization in Multi-Agent Systems. *Proceedings of the ACM on Measurement and Analysis of Computing Systems* (POMACS), 3(3):1–29, 2019.

P. London, S. Vardi, A. Wierman, H. Yi. A Parallelizable Acceleration Framework for Packing Linear Programs. *Association for the Advancement of Artificial Intelligence* (AAAI) 2018.

P. London, N. Chen, S. Vardi, A. Wierman. Distributed optimization via local computation algorithms. *ACM SIGMETRICS Performance Evaluation Review* 45 (2), 30-32, 2017.

X. Ren, **P. London**, J. Ziani, A. Wierman. Joint Data Purchasing and Data Placement in a Geo-Distributed Data Market. Proceedings of the 2016 *ACM SIGMETRICS International Conference on Measurement and Modeling of Computer Science*, 2016.

K.M. Tan, **P. London**, K. Mohan, S.-I. Lee, M. Fazel, D. Witten. Learning Graphs with Hubs. *Journal of Machine Learning Research* (JMLR), 15 (Oct): 3297-3331, 2014.

K. Mohan, **P. London**, M. Fazel, D. Witten, S.-I. Lee. Node-Based Learning of Multiple Gaussian Graphical Models. *Journal of Machine Learning Research* (JMLR), 15 (Feb): 445-488, 2014.

Thesis

Palma London. Frameworks for High Dimensional Convex Optimization. Ph.D. Thesis, California Institute of Technology, Pasadena CA. July 2020.

Invited talks and synergistic activities

Informs (Inst. for Oper. Res. and the Management Sciences), Seattle, WA, Oct. 2019
Cornell ORIE (Oper. Research and Info. Engin.) Young Researchers Workshop, Oct. 2019
Amazon AWS Artificial Intelligence Lab at Caltech, Apr. 2019
Purdue University, Computer Science Colloquium, Oct. 2018
AAAI 2018 (Asso. for the Adv. of Artificial Intelligence), New Orleans, LA, Feb. 2018
MAMA 2017 Workshop at ACM SIGMETRICS, Univ. Of Urbana-Champagne, June 2017

Teaching

Computer Science Teaching Assistant, California Institute of Technology
CS 21: Decidability and Tractability, Winter 2016

References

Professor Adam Wierman
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(626) 395-6569, adamw@caltech.edu

Professor Steven Low
Professor of Computing and Mathematical Sciences, California Institute of Technology
(626) 395-6767, slow@caltech.edu

Professor Yisong Yue
Assistant Professor of Computing and Math. Sciences, California Inst. of Technology
(626) 395-2464, yyue@caltech.edu

Professor Petros Drineas
Professor of Computer Science,
Purdue University
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