

Mufan (Bill) Li

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RESEARCH POSITIONS	Postdoctoral Research Associate, Princeton University Department of ORFE, Supervised by Boris Hanin	2023-Present
DEGREES	Ph.D. Statistics, University of Toronto Thesis: <i>Analysis of Learning Algorithms via Diffusion Limits</i> Supervised by Daniel M. Roy and Murat A. Erdogdu	2017-2023
	M.Sc. Statistics, University of Toronto	2015-2016
	B.A.Sc. Engineering Science, University of Toronto	2010-2015
RESEARCH ARTICLES	See also my Google Scholar or Semantic Scholar pages.	
	1. Matthew Zhang, Sinho Chewi, M. Li , Krishnakumar Balasubramanian, and Murat A. Erdogdu, <i>Improved Discretization Analysis for Underdamped Langevin Monte Carlo</i> . To appear at COLT 2023. arXiv:2302.08049 .	
	2. M. Li and Murat A. Erdogdu, <i>Riemannian Langevin Algorithm for Solving Semidefinite Programs</i> . To appear in Bernoulli 2023+. arXiv:2010.11176 .	
	3. M. Li , Mihai Nica, and Daniel M. Roy, <i>The Neural Covariance SDE: Shaped Infinite Depth-and-Width Networks at Initialization</i> . NeurIPS 2022 (Selected for Oral, Nominated for Award). arXiv:2206.02768 .	
	4. Raphaël Berthier and M. Li , <i>Acceleration of Gossip Algorithms through the Euler–Poisson–Darboux Equation</i> . IMA Journal of Applied Mathematics 2022. arXiv:2202.10742 .	
	5. Sinho Chewi, Murat A. Erdogdu, M. Li , Ruoqi Shen, and Matthew Zhang, <i>Analysis of Langevin Monte Carlo from Poincaré to Log-Sobolev</i> . COLT 2022 Extended Abstract . Under review at Ann. of Appl. Prob. arXiv:2112.12662 .	
	6. M. Li , Mihai Nica, and Daniel M. Roy, <i>The Future is Log-Gaussian: ResNets and Their Infinite-Depth-and-Width Limit at Initialization</i> . NeurIPS 2021 . arXiv:2106.04013 .	
	7. M. Li , and Maxime Gazeau, <i>Higher Order Generalization Error for First Order Discretization of Langevin Diffusion</i> . Preprint 2021. arXiv:2102.06229 .	
AWARDS	Doctoral Award, University of Toronto	2023
	Student Research Presentation Award, Stat. Soc. of Canada	2021
	Ontario Graduate Scholarship	2019-2023
	MITACS Accelerate Fellowship, with Borealis AI	2018-2019
	Undergraduate Summer Research Fellowship, University of Toronto	2012
WORK EXPERIENCE	Research Intern, Borealis AI	Aug 2018 - Apr 2019
	Investment Analyst, Ontario Teachers' Pension Plan	Jul 2016 - Jul 2017
	Electronic Trading Intern, RBC Capital Markets	May 2013 - Aug 2014
INVITED TALKS	DeepProb, University of Oxford	Feb 2023
	<i>Neural Covariance SDE: Shaped Infinite Depth-and-Width Networks at Initialization</i>	

	OPTML++, MIT (Video)	Feb 2023
	<i>Neural Covariance SDE: Shaped Infinite Depth-and-Width Networks at Initialization</i>	
	Deep Learning Foundations, University of Maryland (Video)	Sept 2022
	<i>Neural Covariance SDE: Shaped Infinite Depth-and-Width Networks at Initialization</i>	
CONTRIBUTED TALKS	Statistical Society of Canada Annual Meeting	May 2023
	<i>Neural Covariance SDE: Shaped Infinite Depth-and-Width Networks at Initialization</i>	
	Institute of Mathematical Statistics Annual Meeting	Jun 2022
	<i>Analysis of Langevin Monte Carlo from Poincaré to Log-Sobolev</i>	
	Statistical Society of Canada Annual Meeting	May 2022
	<i>Analysis of Langevin Monte Carlo from Poincaré to Log-Sobolev</i>	
	Statistical Society of Canada Annual Meeting	May 2021
	<i>Riemannian Langevin Algorithm for Solving Semidefinite Programs</i>	
PEER REVIEW	Journal of Machine Learning Research (JMLR)	
	Transactions on Machine Learning Research (TMLR)	
	SIAM Journal on Mathematics of Data Science (SIMODS)	
	Journal of Computational and Graphical Statistics (JCGS)	
	Neural Information Processing Systems (NeurIPS)	
	International Conference on Learning Representations (ICLR)	
	International Conference on Machine Learning (ICML)	