

Blair Bilodeau

WEBSITE www.blairbilodeau.ca
EMAIL blair.bilodeau@mail.utoronto.ca
PHONE +1 (519) 871-4811

DEGREES

In progress Ph.D. Statistical Sciences, University of Toronto
 Advisor: Daniel Roy
 Committee: Nancy Reid, Ting-Kam Leonard Wong
2018 H.B.Sc. Financial Modelling, Western University
 GPA: 94 / 100

EMPLOYMENT

2019– Graduate Researcher, Vector Institute, Toronto, Ontario
2017–18 Undergraduate Researcher, Western University, London, Ontario
2016 Risk Research Intern, London Life, London, Ontario
2015 Data Analyst Intern, Bell Canada, London, Ontario

RESEARCH GRANTS

2020 6,000 CAD NSERC Michael Smith Foreign Study Supplement
2019–22 105,000 CAD NSERC Alexander Graham Bell Canada Graduate Scholarship – Doctoral
2018–19 17,500 CAD NSERC Alexander Graham Bell Canada Graduate Scholarship – Master’s
2018–19 15,000 CAD Queen Elizabeth II Graduate Scholarship in Science and Technology (*Declined*)
2018 4,500 CAD NSERC Undergraduate Student Research Award
2017 4,500 CAD NSERC Undergraduate Student Research Award

HONOURS AND AWARDS

2022 Visiting Graduate Student, Simons Institute for the Theory of Computing, Berkeley, California
2021 Doctoral Early Research Excellence Award, Statistical Sciences, University of Toronto
2021 Hannan Graduate Student Travel Award, Institute of Mathematical Statistics
2020 Student Ambassador Award, Statistical Sciences, University of Toronto
2020 Best Poster Award, New York Academy of Sciences Machine Learning Symposium
2020 Visiting Graduate Student, Insitute for Advanced Study, Princeton, New Jersey
2018 E. F. and F. W. Burton Graduate Scholarship, University of Toronto
2017 Robert and Ruth Lumsden Scholarship in Science, Western University
2017 Borwein Memorial Prize, Western University
2014–18 Continuing Admission Scholarship, Western University

REFEREED PUBLICATIONS

[†]lead author; *equal contribution

1. J. Negrea*, **B. Bilodeau***, N. Campolongo, F. Orabona, and D. M. Roy. (2021). Minimax Optimal Quantile and Semi-Adversarial Regret via Root-Logarithmic Regularizers. *Neural Information Processing Systems*.
2. **B. Bilodeau**[†], D. J. Foster, and D. M. Roy. (2020). Tight Bounds on Minimax Regret Under Logarithmic Loss via Self-Concordance. *International Conference on Machine Learning*.
3. **B. Bilodeau**[†], D. A. Stanford, M. Goldszmidt, and A. Appleton. (2019). Simulated Co-location of Patients Admitted to an Inpatient Internal Medicine Teaching Unit: Potential Impacts on Efficiency and Physician-Nurse Collaboration. *INFOR: Information Systems and Operational Research*.

PREPRINTS

4. **B. Bilodeau**[†], D. J. Foster, and D. M. Roy. (2021). Minimax Rates for Conditional Density Estimation via Empirical Entropy. *arXiv:2109.10461*.
5. **B. Bilodeau**^{*}, A. Stringer^{*}, and Y. Tang^{*}. (2021). Stochastic Convergence Rates and Applications of Adaptive Quadrature in Bayesian Inference. *arXiv:2102.06801*.
6. **B. Bilodeau**^{*}, J. Negrea^{*}, and D. M. Roy. (2020). Relaxing the I.I.D. Assumption: Adaptively Minimax Optimal Regret via Root-Entropic Regularization. *arXiv:2007.06552*.
7. **B. Bilodeau**[†] and D. A. Stanford. (2020). High-Priority Expected Waiting Times in the Delayed Accumulating Priority Queue with Applications to Health Care KPIs. *arXiv:2001.06054*.

PRESENTATIONS (CONTRIBUTED AND INVITED TALKS/SEMINARS/COLLOQUIA/WORKSHOPS)

An Introduction to Theoretical Statistics Research

July 2021 University of Toronto: Independent Summer Stats Community Tidy Tuesday + Talk Series

Stochastic Convergence Rates and Applications of Adaptive Quadrature in Bayesian Inference

June 2021 International Society for Bayesian Analysis World Meeting: Oral Session

Minimax Rates for Conditional Density Estimation via Empirical Entropy

Aug 2021 American Statistical Association Joint Statistical Meetings: Speed Session

June 2021 Statistical Society of Canada Annual Meeting: Oral Session

Apr 2021 University of Toronto Statistical Sciences Research Day: Oral Session

Relaxing the I.I.D. Assumption: Adaptively Minimax Optimal Regret via Root-Entropic Regularization

Apr 2021 DeepMind: Foundations Reading Group

Mar 2021 University of California, Los Angeles: Computer Science Seminar

Mar 2021 Massachusetts Institute of Technology: Stochastics and Statistics Seminar

Feb 2021 RIKEN Center for Advanced Intelligence Project: Public Seminar

Tight Bounds on Minimax Regret under Logarithmic Loss via Self-Concordance

Aug 2020 American Statistical Association Joint Statistical Meetings: Poster Session

Mar 2020 New York Academy of Sciences Machine Learning Symposium: Poster Session

Mar 2020 Institute for Advanced Study: Special Year Student Seminar

Scraping Papers from arXiv and biorXiv using Python

May 2020 Canadian Statistics Student Conference: Invited Workshop

High-Priority Expected Waiting Times in the Delayed Accumulating Priority Queue

Aug 2019 Canadian Queueing Conference: Oral Session

June 2019 Southwestern Ontario Graduate Math and Stats Conference: Oral Session

May 2019 Canadian Operational Research Society Annual Meeting: Oral Session

Simulated Co-location of Patients Admitted to an Inpatient Internal Medicine Teaching Unit

Aug 2018 Canadian Queueing Conference: Oral Session

July 2018 Operational Research Applied to Health Services Annual Meeting: Oral Session

TEACHING

UTSG = University of Toronto, St. George

Course Instructor

2021 S UTSG STA347 Probability Theory

2020 S UTSG STA347 Probability Theory

Head Teaching Assistant

2019 F UTSG STA442 Methods of Applied Statistics

2019 S UTSG STA261 Probability and Statistics II

Teaching Assistant

2021 F	UTSG	STA347	Probability Theory
2021 F	UTSG	STA257	Probability and Statistics I
2021 W	UTSG	STA238	Probability, Statistics, and Data Analysis II
2020 F	UTSG	STA347	Probability Theory
2020 F	UTSG	STA257	Probability and Statistics I
2019 F	UTSG	STA257	Probability and Statistics I
2019 W	UTSG	STA457	Time Series Analysis
2019 W	UTSG	STA355	Theory of Statistical Practice
2018 F	UTSG	STA347	Probability Theory
2018 F	UTSG	ACT230	Mathematics of Finance for Non-Actuaries

SERVICE

Journal Referee

Machine Learning

Conference Referee

ALT 2021, AISTATS 2022, ICLR 2022

Workshop Referee

NeurIPS 2021

Administrative Positions

2019–21 Treasurer, Statistics Graduate Student Association, University of Toronto