

BIOGRAPHICAL INFORMATION

Mailing Address: Health Sciences Building, 155 College Street, Toronto, ON M5T 3M7

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EDUCATION

PhD in Biostatistics, University of Toronto	2015-2021
MMath in Statistics-Biostatistics, University of Waterloo	2011-2012
BSc Honour in Statistics, University of Alberta	2007-2011

PROFESSIONAL EXPERIENCE

Assistant Professor in Biostatistics (cross-appointment), University of Toronto	Sep 2021-
Assistant Professor in Health Services Research, University of Toronto	Jul 2021-
Biostatistics Analyst (Casual), Hospital for Sick Children	2020-2021
Biostatistician (Casual), Department of Medical Imaging, University of Toronto	2016-2017
Research Analyst (Full-time), Institute for Clinical Evaluative Sciences - Western	2013-2015

GRANTS AND SCHOLARSHIPS

- (Awarded) **Co-Applicant** of Natural Sciences and Engineering Research Council of Canada Discovery Horizon Grant titled, “Pioneering Mathematics to Precision Medicine: Interdisciplinary Research on the Development and Application of Tools to Support Biomedical Discovery using Biobank Data”, \$299,815 (CAD), Apr 2024-Mar 2027 (NPI: Geoffrey Anderson; Co-applicants: Kuan Liu, Deirdre Haskell)
- (Awarded) **Primary supervisor and Principle Investigator** of Data Sciences Institute Postdoctoral Fellowship Award titled, “Using Data Science and Causal Inference Methods to Evaluate Equity-Focused Impacts of School Closures on Childhood and Youth Mental Health in Canada During the COVID-19 Pandemic”, \$60,000 (CAD), Sep 2024-Aug 2025 (Postdoc trainee: Jay Xu)
- (Awarded) **Co-Principle Applicant** of Canadian Institutes of Health Research Project Grant titled, “Implementing Novel Causal Evaluations in the PRACTICAL Trial and through an International Observational Data Network (INCEPTION) Project”, \$478,124 (CAD), Apr 2024-Mar 2028 (NPI: Martin Urner; PIs: Martin Urner, Eddy Fan, Kuan Liu, Mireille Schnitzer)
- (Awarded) **Principle Investigator** of Institute for Pandemics Catalyst and Research Development Grant titled, “Understanding the impact of pandemic education disruption and community-level socioeconomic status on longitudinal mental health outcomes in children and youth using innovative statistical methods”, \$25,000 (CAD), Aug 2023-Dec 2024
- (Awarded) **Principle Investigator** of Data Sciences Institute Seed Funding for Methodologists titled, “Statistical Methods for Causal Inference and Longitudinal Trajectory Modelling with Multiple Features in Dementia”, \$10,000 (CAD), Jul 2023-Jun 2024
- (Awarded) **Co-Investigator** of Canadian Institutes of Health Research Project Grant titled, “Evaluating Subphenotypes in Immunocompromised Patients with Acute Respiratory Failure”, \$455,176, Feb 2023-Jan 2026 (PIs: Laveena Munshi, Eddy Fan, Bruno Ferreyro)
- (Awarded) **Co-Investigator** of Canadian Institutes of Health Research Training Grant Clinical Trials Training Platforms titled, “A Training Platform in Pragmatic Registry-Based Trials: Connecting Canada’s Health, Data, and Biomanufacturing Sectors”, \$3,479,320, Sep 2022-Aug 2025 (PI: Amit Garg)

- (Awarded) **Co-Investigator** of Canadian Institutes of Health Research Operating Grant titled, "Driving Pressure-Limited Ventilation in Hypoxemic Respiratory Failure: The DRIVE RCT", \$3,479,320, Oct 2022-Aug 2025 (PIs: Eddy Fan, Niall Ferguson, Ewan Goligher, Anna Heath, Sarina Sahetya)
- (Awarded) **Co-Principle Investigator** of Data Sciences Institute - McLaughlin Centre Polygenic Risk Score Grant, "A multimodal AI Solution for Improved Outcome Prediction using Polygenic Scores and EHR", \$20,000 (CAD), Jan 2023-Dec 2024 (NPI: Zahra Shakeri)
- (Completed) **Co-Principle Investigator** of Data Sciences Institute Data Access Grant titled, "Childhood-onset Systemic Lupus Erythematosus in Ontario: Determining Long-term Outcomes", \$9,971 (CAD), Jan 2023-Dec 2023 (NPI: Deborah Levy)
- (Completed) **Principle Investigator** of the 2022 Connaught New Researcher Award titled, "Novel Bayesian Causal Inference Methods for Longitudinal Comparative Effectiveness Studies of Pediatric Rheumatic Disease", \$20,000 (CAD); Jul 2022-Jun 2024
- (Completed) **Co-Investigator** of JDRF Canada – Brain Canada Addressing Mental Health in Type 1 Diabetes Team Grants titled, "Teaching Adolescents with type 1 Diabetes Self-compassion (TADS) to reduce diabetes distress: A randomized controlled trial", \$249,448 (CAD), Mar 2022-Mar 2024 (PI: Maire-Eve Robinson)
- (Completed) **Co-Investigator** of Canadian Institutes of Health Research Project Grant titled, "Understanding the Impact of Public Health Pandemic Mitigation Strategies and Despair-related Health Outcomes in Mothers, Children and Youth in Ontario through a Socioeconomic Lens", \$499,291 (CAD), Feb 2022-Jan 2024 (PI: Geoffrey Anderson)
- (Completed) **Primary supervisor and Principle Investigator** of Data Sciences Institute Summer Undergraduate Data Sciences Research Opportunity Award titled, "A comparison of Missing Data Methods for Clinical Trials", \$7,200 (CAD), May 2023-Aug 2023 (Undergraduate trainee: Bilin Nong)
- (Completed) **Co-Investigator** of Canadian Institutes of Health Research Project Grant titled, "Driving Pressure-Limited Ventilation in Hypoxemic Respiratory Failure: The DRIVE RCT", \$100,000 (CAD), Oct 2022 - Sep 2023 (PIs: Fan, Goligher, Ferguson and Sahetya)
- (Completed) **Primary supervisor and Principle Investigator** of Data Sciences Institute Summer Undergraduate Data Sciences Research Opportunity Award titled, "Advanced causal inference analysis in R", \$7,500 (CAD), May 2022-Aug 2022 (Undergraduate trainee: Yutong Lu)
- (Completed) **Principle Investigator** of Canadian Institutes of Health Research Doctoral Award - Frederick Banting and Charles Best Canada Graduate Scholarship, \$105,000 (CAD), Sep 2017-Aug 2020
- (Completed) **Principle Investigator** of Hospital for Sick Children Research Training Competition (Restracomp) Scholarship, \$24,000 (CAD), Sep 2016-Aug 2017

HONOURS AND AWARDS

The 2020 Beverly Antle Trainee Award, Hospital for Sick Children	Jun 2020
Student Best Poster Presentation, The 30th International Biometric Conference	Dec 2020
John Hsieh Award, Dalla Lana School of Public Health, University of Toronto	Aug 2020
University of Toronto COVID-19 Student Engagement Award	Jun 2020
Travel Award, 2019 Canadian Statistics Student Conference, Calgary, Canada	May 2019
Travel Award, 2019 Atlantic Causal Inference Conference, Montreal, Canada	May 2019
Travel Award, 2019 ENAR Annual Meeting, Philadelphia, USA	Mar 2019
Student Best Poster Presentation, The 29th International Biometric Conference	Jul 2018

Barcelona, Spain

Paul Corey Presentation Award, Biostatistics Research Day, Toronto, Canada	Jun 2018
Travel Award, The 46th SSC Annual Meeting, Montreal, Canada	May 2018
First prize, Student Case Study Competition, The 44th SSC Annual Meeting	May 2016
First prize, 2015 ImagineNation Data Impact Challenge, Canada Health Infoway	May 2015
Statistics and Actuarial Science Chair Award, University of Waterloo	2011-2012
Faculty of Science, Dean's Honor Roll List, University of Alberta	2008-2010
Registrar's International Student Scholarship, University of Alberta	2007-2011

TEACHING

- HAD7002H Causal Inference, University of Toronto 2024-
- HAD5319H Biostatistics III: Advanced Biostatistical Techniques for Observational Studies, University of Toronto 2022-
- HAD5314H Applied Bayesian Methods in Clinical Epidemiology and Health Care Research, University of Toronto 2022-
- STAB22 Statistics I, University of Toronto Scarborough 2020

SUPERVISION AND MENTORSHIP

- **Co-supervision** of Rachel Giblon, PhD Biostatistics thesis student 2024-
Jointly with Anna Heath
- **Co-supervision** of Omri A. Arbiv, MSc thesis student in Clinical Epidemiology 2023-
Jointly with Andrea Gershon
- **Supervision** of Xiao Yan, MSc Biostatistics practicum student 2023-
- **Co-supervision** of Yanning Wang, PhD Biostatistics practicum student 2023-
Jointly with Andrea Knight
- **Co-Supervision** of Yannay Khaikin, MSc thesis student in Clinical Epidemiology 2023-
Jointly with Sebastian Hobson
- **Supervision** of Yushu Zou, MSc thesis student in Biotatistics 2022-
- **Co-Supervision** of Chen Chen, PhD Biostatistics practicum student 2022-
Jointly with Zihang Lu
- **Co-supervision** of Bilin Nong, BSc student in Applied Mathematics 2023-2023
Jointly with Kevin Thorpe
- **Supervision** of Laura Langer, MSc Biostatistics practicum student 2022-2023
current appointment - Data Scientist/Analyst at University Health Network
- **Co-Supervision** of Shijie Min, MSc Biostatistics practicum student 2022-2023
Jointly with Aya Mitani, current appointment - MSc Biostatistics thesis student
- **Supervision** of Yutong Lu, BSc student in Applied Statistics 2022-2023
current appointment - MSc Biostatistics student
- **Co-supervision** of Fatema Tuj Johara, PhD Biostatistics Practicum student 2021-2022
Jointly with Linda Hiraki, current appointment - PhD student
- **Co-supervision** of Ha-Seul (Steve) Jeoung, MSc Biostatistics Practicum student 2021-2022
Jointly with Deborah Levy, current appointment - Research Analyst at ICES
- Member of PhD thesis advisory committee of Nancy Tahmo 2024-
Epidemiology, University of Toronto (supervisor Sharmistha Mishra)

- Member of PhD thesis advisory committee of Olugbenga Akinkugbe 2023-
Clinical Epidemiology, University of Toronto (supervisor Christopher Parshuram)
- Member of PhD thesis advisory committee of Larry Dong 2023-
Biostatistics, University of Toronto (supervisors Eleanor Pullenayegum and Olli Saarela)
- Member of MSc thesis advisory committee of Shijie Min 2023-
Biostatistics, University of Toronto (supervisor Pingzhao Hu)
- Member of PhD thesis advisory committee of Adeteju Ogunbameru 2021-
Health Services Research, University of Toronto (supervisor Beate Sander)
- Member of PhD thesis advisory committee of Moaath Saggaf 2022-2023
Clinical Epidemiology, University of Toronto (supervisor Brian Feldman)
- Member of MSc thesis advisory committee of Ricardo Teijeiro Paradis 2022-2023
Clinical Epidemiology, University of Toronto (supervisor Eddy Fan)
- Member of MSc thesis advisory committee of Luis Ledesma 2022-2023
Biostatistics, University of Toronto (supervisor Eleanor Pullenayegum)
- Member of MSc thesis advisory committee of Stephan von Doring 2021-2023
Clinical Epidemiology, University of Toronto (supervisor Eddy Fan)

PUBLICATIONS AND MANUSCRIPTS

Google Scholar Profile [Link](#)

ResearchGate Profile [Link](#)

1. Boudreau C, **Liu K**, Varet H, Katsahian S. Gamma frailty models for competing risks. (2024). (Preparing for submission to *Statistics in Medicine*)
2. Chicco D, Chen C, **Liu K**, Lu ZH, Anderson GM. (2024). A comparative review of the current R software packages for longitudinal clustering of multiple features for defining disease trajectories. *Computers in Biology and Medicine*. (Submitted)
3. **Liu K**, Saarela O, Tomlinson G, Feldman BM, Pullenayegum E. (2024). A Bayesian latent class approach to causal inference with longitudinal data. *Statistical Methods in Medical Research*. (Under Revision)
4. Coleman J, Grewal S, Warland J, Hobson SR, **Liu K**, Kember AJ. (2024). Maternal positional therapy for foetal growth and customised birthweight centile benefit in a Bayesian reanalysis of a double-blind, sham-controlled, randomised clinical trial. *BMJ Open*. (Accepted)
5. Ricciuto A, **Liu K**, El-Matary W, Amin M, Amir AZ, Aumar M, et al. (2024). Oral vancomycin is associated with improved inflammatory bowel disease clinical outcomes in primary sclerosing cholangitis-associated inflammatory bowel disease (PSC-IBD): A matched analysis from the Paediatric PSC Consortium. *Alimentary Pharmacology & Therapeutics*. (Accepted)
6. Zhang X, Dai HD, Huang YT, **Liu K**, Li XG, Zhang SX, et al. (2024). Species pool, local assembly processes: Disentangling the mechanisms determining bacterial α - and β -diversity during forest secondary succession. *Molecular Ecology*, 33(4), e17241.
7. Abdelmalek FM, Angriman F, Moore J, **Liu K**, Burry L, Seyyed-Kalantari L et al. (2024). Association between Patient Race and Ethnicity and Use of Invasive Ventilation in the United States of America. *Annals of the American Thoracic Society*, 21(2), 287-295.

8. Dover S, Ahmet A, Bluth K, Feldman BM, Goldbloom E, Goldfield G, [et al, including **Liu K**] (2023). Teaching Adolescents with type 1 Diabetes Self-compassion (TADS) to reduce diabetes distress: study protocol of a randomized controlled trial. *JMIR Research Protocols*, 12(1), e53935.
9. Yarnell CJ, Angriman F, Ferreyro B, **Liu K**, De Grooth HJ, Burry L et al. (2023). Oxygenation thresholds for invasive ventilation in hypoxemic respiratory failure: a target trial emulation in two cohorts. *Critical Care*, 27(1), 1-13.
10. Avila L, Bentley RF, Bastas D, Brandão LR, Schneiderman JE, Ward L, [et al, including **Liu K**] (2023). Unraveling the pathophysiology of lower-limb postthrombotic syndrome in adolescents: a proof-of-concept study. *Blood Advances*. 7(12): 2784-2793.
11. Bastas D, Brandão LR, Allen D, Vincelli J, Amiri Nour, Abdul-Samad K, [et al, including **Liu K**] (2023). Functional Impact of Pediatric Post-Thrombotic Syndrome. *Journal of Thrombosis and Haemostasis*, 21(4), 896-904.
12. Yarnell CJ, Johnson A, Dam T, Jonkman A, **Liu K**, Wunsch H et al. (2022). Do Thresholds for Invasive Ventilation in Hypoxemic Respiratory Failure exist? A Cohort Study. *American Journal of Respiratory and Critical Care Medicine*, 207(3), 271-282.
13. Dave S, Clark R, Chan EP, Richard L, **Liu K**, Wang PZ, et al. (2022). Factors which delay surgery for undescended testis in Ontario: A retrospective population based cohort study on timing of orchidopexy between 2006 and 2012. *Journal of Pediatric Urology*, 18(5), 695-e1.
14. Castelo M, Lu J, Paszat L, Veitch Z, **Liu K**, and Scheer AS. (2022). Long-term survival in elderly women receiving chemotherapy for non-metastatic breast cancer: a population-based analysis. *Breast Cancer Research and Treatment*, 1-13.
15. Burns KE, Laird M, Stevenson J, Honarmand K, Granton D, Kho ME, [et al, including **Liu K**]. (2021). Adherence of Clinical Practice Guidelines for Pharmacologic Treatments of Hospitalized Patients With COVID-19 to Trustworthy Standards: A Systematic Review. *JAMA network open*, 4(12), e2136263-e2136263.
16. Trivedi V, Chaudhuri D, Jinah R, Piticar J, Agarwal A, **Liu K**, et al. (2021). The Utility of the Rapid Shallow Breathing Index in Predicting Successful Extubation: A Systematic Review and Meta-analysis. *Chest*.
17. **Liu K**, Tomlinson G, Reed AM, Huber AM, Saarela O, Bou-Tabaku SM, et al. (2021). Pilot study of the juvenile dermatomyositis consensus treatment plans: A CARRA Registry study. *Journal of Rheumatology*, 48(1), 114-122.
18. Zhang X, Liu S, Wang J, Huang Y, Freeman Z, Fu S, [et al, including **Liu K**]. (2020) Local community assembly mechanisms shape soil bacterial β -diversity patterns along latitudinal gradients in eastern China. *Nature Communications*, 11(1):5428.
19. **Liu K**, Saarela O, Feldman BM, Pullenayegum E. (2020). Estimation of causal effects with repeatedly measured outcomes in a Bayesian framework. *Statistical Methods in Medical Research*, 29(9), 2507-2519.
20. Nater A, Chuang J, **Liu K**, Quraishi NA, Pasku D, Wilson JR, & Fehlings MG. (2020). A personalized medicine approach for the management of spinal metastases with cord compression: development of a novel clinical prediction model for postoperative survival and quality of life. *World Neurosurgery*, 140, 654-663.
21. Jing Y, Wang Y, Liu S, Zhang X, Wang Q, **Liu K**, et al. (2019). Interactive effects of soil warming, throughfall reduction, and root exclusion on soil microbial community and residues in warm-temperate oak forests. *Applied Soil Ecology*, 142: 52-58.

22. Burns KE, Straus SE, **Liu K**, Rizvi L, Guyatt G. (2019). Gender differences in grant and personnel award funding rates at the Canadian Institutes of Health Research based on research content area: A retrospective analysis. *PLoS Medicine*, 16(10).
23. Simkin P, Rattansingh A, **Liu K**, Hudson JM, Atri M, Jang H-J, et al. (2019). Reproducibility of 2 liver 2-dimensional shear wave elastographic techniques in the fasting and postprandial states. *Journal of Ultrasound in Medicine*, 38(7): 1739-1745.
24. Dave S, **Liu K**, Clark R, Garg AX, Shariff SZ. (2018). A retrospective population-based cohort study to evaluate the impact of an older sibling with undescended testis and hypospadias on the known maternal and fetal risk factors for undescended testis and hypospadias in Ontario, Canada, 1997-2007. *Journal of Pediatric Urology*, 15(1): 41.e1-41.e9.
25. MacNeil SD, Patel K, **Liu K**, Shariff SZ, Yoo J, Nichols A, et al. (2018). Survival of patients with subglottic squamous cell carcinoma. *Current Oncology*, 25(6): e569-e575.
26. Dave S, **Liu K**, Garg AX, Shariff SZ. (2018). Secular trends in the incidence and timing of surgical intervention for congenital undescended testis and surgically treated hypospadias in Ontario, Canada between 1997 and 2007. *Journal of Pediatric Urology*, 14(5): 552.e1-552.e7.
27. Lazo-Langner A, **Liu K**, Shariff SZ, Garg AX, Ray JG. (2018). Immigration, region of origin, and the epidemiology of venous thromboembolism: A population-based study. *Research and Practice in Thrombosis and Haemostasis*, 2(3): 469-480.
28. Gnannt R, Waespe N, Temple M, Amirabadi A, **Liu K**, Brandão LR, et al. (2018). Increased risk of symptomatic upper-extremity venous thrombosis with multiple peripherally inserted central catheter insertions in pediatric patients. *Pediatric Radiology*, 48(7): 1013-1020.
29. Zhang M, Liu N, Harper R, Li Q, **Liu K**, Wei X, et al. (2017). A global review on hydrological responses to forest change across multiple spatial scales: Importance of scale, climate, forest type and hydrological regime. *Journal of Hydrology*, 546: 44-59.
30. Welk B, **Liu K**, Winick-Ng J, Shariff SZ. (2017). Urinary tract infections, urologic surgery, and renal dysfunction in a contemporary cohort of traumatic spinal cord injured patients. *Neurourology and Urodynamics*, 36(3): 640-647.
31. Liu Y, Liu S, Wan S, Wang J, Wang H, **Liu K**. (2017). Effects of experimental throughfall reduction and soil warming on fine root biomass and its decomposition in a warm temperate oak forest. *Science of the Total Environment*, 574: 1448-1455.
32. Hu Z, Liu S, Liu X, Fu L, Wang J, **Liu K**, et al. (2016). Soil respiration and its environmental response varies by day/night and by growing/dormant season in a subalpine forest. *Scientific Reports*, 6:37864.
33. Liu AR, Garg AX, **Liu K**, Shariff SZ, Jain AK, Weir MA. (2016). Increased risk of adverse renal outcome following polyethylene glycol bowel preparation compared to sodium picosulfate. *The Journal of Clinical Pharmacology*, 56(8): 983-987.
34. Clemens KK, **Liu K**, Shariff SZ, Schernthaner G, Tangri N, Garg A. (2016). Secular trends in antihyperglycaemic medication prescriptions in older adults with diabetes and chronic kidney disease: 2004-2013. *Diabetes, Obesity and Metabolism*, 18(6): 607-614.
35. Vinden C, Malthaner R, McGee J, McClure JA, Winick-Ng J, **Liu K**, et al. (2016). Teaching surgery takes time: The impact of surgical education on time in the operating room. *Canadian Journal of Surgery*, 59(2): 87-92.
36. Welk B, **Liu K**, Shariff SZ. (2016). The use of urologic investigations among patients with traumatic spinal cord injuries. *Research and Reports in Urology*, 8: 27-34.

37. Burneo JG, Shariff SZ, **Liu K**, Leonard S, Saposnik G, Garg AX. (2016). Disparities in surgery among patients with intractable epilepsy in a universal health system. *Neurology*, 86(1): 72-78.
38. Welk B, **Liu K**, Al-Jaishi A, McArthur E, Jain A, Ordon M. (2016). Repeated diagnostic imaging studies in Ontario and the impact of health information exchange systems. *Health-care Quarterly*, 19(1): 24-28.
39. Vasudev A, Shariff SZ, **Liu K**, Burhan AM, Herrmann N, Leonard S, et al. (2015). Trends in psychotropic dispensing among older adults with dementia living in long-term care facilities: 2004-2013. *The American Journal of Geriatric Psychiatry*, 23(12): 1259-1269.
40. Hildebrand AM, **Liu K**, Shariff SZ, Ray JG, Sontrop JM, Clark WF, et al. (2015). Characteristics and outcomes of AKI treated with dialysis during pregnancy and the postpartum period. *Journal of the American Society of Nephrology*, 26(12): 3085-3091.
41. MacNeil SD, **Liu K**, Garg AX, Tam S, Palma D, Thind A, et al. (2015). A population-based study of 30-day incidence of ischemic stroke following surgical neck dissection. *Medicine*, 94(33).
42. MacNeil SD, **Liu K**, Shariff SZ, Thind A, Winquist E, Yoo J, et al. (2015). Secular trends in the survival of patients with laryngeal carcinoma, 1995-2007. *Current Oncology*, 22(2): e85.
43. Fraser LA, **Liu K**, Naylor KL, Hwang YJ, Dixon SN, Shariff SZ, et al. (2015). Falls and fractures with atypical antipsychotic medication use: A population-based cohort study. *Journal of the American Medical Association Internal Medicine*, 175(3): 450-452.
44. Clemens KK, Shariff SZ, **Liu K**, Hramiak I, Mahon JL, McArthur E, et al. (2015). Trends in antihyperglycemic medication prescriptions and hypoglycemia in older adults: 2002-2013. *PloS ONE*, 10(9): e0137596.
45. Luan J, Liu S, Chang SX, Wang J, Zhu X, **Liu K**, et al. (2014). Different effects of warming and cooling on the decomposition of soil organic matter in warm-temperate oak forests: a reciprocal translocation experiment. *Biogeochemistry*, 121(3): 551-564.
46. Radhakrishnan DK, Dell SD, Guttman A, Shariff SZ, **Liu K**, To T. (2014). Trends in the age of diagnosis of childhood asthma. *Journal of Allergy and Clinical Immunology*, 134(5): 1057-1062.
47. Welk B, Tran KC, **Liu K**, Shariff SZ. (2014). The pattern of urologic care among traumatic spinal cord injured patients. *Canadian Urological Association Journal*, 8: 11-12.
48. Weir MA, Fleet JL, Vinden C, Shariff SZ, **Liu K**, Song H, et al. (2014). Hyponatremia and sodium picosulfate bowel preparations in older adults. *American Journal of Gastroenterology*, 109(5): 686-694.
49. Welk B, Loh E, Shariff SZ, **Liu K**, Siddiqi F. (2014). An administrative data algorithm to identify traumatic spinal cord injured patients: a validation study. *Spinal Cord*, 52(1): 34-38.
50. Luan J, Liu S, Zhu X, Wang J, **Liu K**. (2012). Roles of biotic and abiotic variables in determining spatial variation of soil respiration in secondary oak and planted pine forests. *Soil Biology and Biochemistry*, 44(1): 143-150.

INVITED TALKS

1. Bayesian estimation of time-varying Treatment effect with clustered data, The 2024 Eastern North American International Biometric Society Annual Meeting, Baltimore, March 2024.

2. (Guest Lecture) Propensity score analysis with clustered data (Instructor: Aya Mitani), Toronto, March 2024.
3. (Guest Lecture) Introduction to Causal Inference and Causal Inference Using Machine Learning Methods, Pacific Institute for the Mathematical Sciences, Statistical Machine Learning for Data Sciences (Instructor: Li Xing), Virtual, November 2023.
4. Causal inference approaches for estimating time-varying treatment effect, Western University, Epidemiology and Biostatistics Research Seminar, London, ON, October 2023
5. Bayesian causal analysis with clustered data, The Joint Statistical Meetings, Toronto, ON, August 2023
6. Bayesian Methods For Longitudinal Causal Inference Using Administrative Data, the 64th World Statistics Congress, Ottawa, ON, July 2023
7. (Invited Tutorial) R workshop on causal inference with machine learning approaches, the 2023 AI4PH Summer Institute, Toronto, ON, July 2023
8. A Bayesian Latent Class Approach to Confounding Structural Learning in Causal Analysis, The 2023 International Chinese Statistical Association Applied Statistics Symposium, Ann Arbor, MI, USA, June 2023
9. Bayesian causal analysis with clustered data, 2023 Annual Meeting of the Statistical Society of Canada, Ottawa, May 2023
10. Bayesian methods for causal inference with longitudinal data, Université du Québec à Montréal Statistics research seminar, Virtual, March 2023.
11. Bayesian methods for causal inference with longitudinal data, York University Statistics Seminar, Toronto, ON, Canada, March 2023.
12. Recent development on Bayesian causal estimation with longitudinal data, Dalhousie Statistics Seminars, Virtual, October 2022.
13. Bayesian Causal Estimation with Time-Dependent Latent Confounders, the 2022 Joint Statistics Meeting, Washington, DC, United States of America, August 2022.
14. Bayesian Approaches to Causal Inference with Latent Confounders, International Chinese Statistical Association – Canada Chapter 2022 Symposium, Banff, Canada, May 2022.
15. Introduction to causal inference with longitudinal data, ICES western research seminar, Virtual, April 2022.
16. Bayesian approaches to causal estimation, DLSPH Biostatistics Seminar, February 2022
17. A Bayesian latent class approach to causal inference with longitudinal data, 2021 Statistics and Mathematics Applied to Cancerology Day (Statistics, Philosophy, and Health), Virtual, June 2021.
18. A Bayesian latent class approach to causal inference with longitudinal data, 2021 Annual Meeting of Statistics Society of Canada, Virtual, June 2021.
19. A Bayesian latent class approach to causal inference with longitudinal data, 30th International Biometric Conference, Virtual, July 2020.
20. Spatial analysis of cannabis and tobacco consumption among Canadian youth and adults, 2015 Canadian Research Data Centre Network National Policy Challenge Meeting, Ottawa, Canada, June 2019.
21. On Bayesian estimation of causal effect with a latent confounder class, 2019 Canadian Statistics Student Conference, Calgary, Canada, May 2019.

22. Estimation of causal effects with longitudinal data in a Bayesian framework, 2019 Eastern North American International Biometric Society Annual Meeting, Philadelphia, USA, March 2019.

REVIEWER

Critical Care Medicine, European Journal of Pediatrics, Observational Studies, Arthritis & Rheumatology, Canadian Institutes of Health Research, Biometrics, International Journal of Biostatistics, Annals of Epidemiology, Pharmacoepidemiology and Drug Safety, Journal of the American Medical Association Cardiology

SERVICES

- Executive Committee Secretary** 2024-
Health Policy Statistics Section of The American Statistical Association
- Member of the School Council** 2023-
Dalla Lana School of Public Health
- Member of the New Investigators Committee** 2023-
Statistical Society of Canada
- Co-lead of the 2023 AI4PH Summer Institute Data Challenge Competition** 2023
Artificial Intelligence for Public Health (AI4PH)
- Reviewer of Postdoctoral Fellowship** Winter 2023
Data Sciences Institute, University of Toronto
- Member of the Teaching Evaluation Committee (Promotion)** 2023-
Institute of Health Policy, Management and Evaluation
- Reviewer of the Malcolm Moffat Health Care System Mentorship Award** 2022-
Institute of Health Policy, Management and Evaluation
- Member of Recruitment, Hiring and Appointments Advisory Committee** 2022-
Dalla Lana School of Public Health
- Member of Biostatistics PhD Admission Committee** 2022-
Dalla Lana School of Public Health
- Member of Biostatistics MSc Admission Committee** 2022-
Dalla Lana School of Public Health
- Member of Biostatistics PhD Comprehensive Exam Committee** 2022-
Dalla Lana School of Public Health
- Reviewer of Doctoral Student Fellowship Award** Winter 2022
Data Sciences Institute, University of Toronto
- Reviewer of Ontario Graduate Scholarship Award** Winter 2022
Dalla Lana School of Public Health
- Member of Faculty Search Committee, Data Sciences Tenure Stream** 2021 & 2022
Dalla Lana School of Public Health
- Member of DSI Research and Academics Committee** 2021-
Data Sciences Institute, University of Toronto
- Co-lead of Health Data Working Group** 2021-
Dalla Lana School of Public Health
- Member of Student and Recent Graduate Committee** 2021-
Statistical Society of Canada

Member of the Data and Safety Monitoring Board The Simple Bone Cysts in Kids (SBoCK) study, Hospital for Sick Children	2021-
Biostatistics Section Editor University of Toronto Journal of Public Health	2019-2021
Member of Faculty Search Committee, Biostatistics Tenure Stream Dalla Lana School of Public Health, University of Toronto	Winter 2020
President, Biostatistics Union of Graduate Students University of Toronto	2017-2018
Conference organization Co-Chair The 2017 Canadian Statistics Student Conference, Statistical Society of Canada	2016-2017
Conference organization Scientific Program Lead The 2016 Canadian Statistics Student Conference, Statistical Society of Canada	2015-2016

PROFESSIONAL MEMBERSHIPS

Member, International Society for Bayesian Analysis	2021-
Member, International Chinese Statistical Association	2021-
Member, Caucus for Women in Statistics	2019-
Member, International Biometrics Society	2017-
Member, Statistical Society of Canada	2011-