



## EDUCATION

---

### PhD, Quantitative Methods, Psychology

E(2025)

York University, Toronto, Ontario

Supervisor: Dr. Robert A. Cribbie

Dissertation: A Bayesian Solution to a Frequentist Problem: Revisiting the Multiplicity Problem with Bayesian Hierarchical Modeling

### MA, Psychological Science

2021

Toronto Metropolitan University, Toronto, Ontario

Supervisor: Dr. Alyssa Counsell

Thesis: Equivalence Testing for Multiple Regression

### BSc, Specialized Honours, Psychology

2016

York University, Toronto, Ontario

Supervisor: Dr. Gary R. Turner

Thesis: The effects of cardio-respiratory fitness, physical activity, and sex differences on brain structure and executive functioning in older adults

- Graduated Summa Cum Laude

## RESEARCH AND TEACHING FUNDING

---

Development Grant, Fund for Innovations in Teaching (FIT)	\$2,000	2025
York University, Faculty of Health		
Title: Developing eLearning and AI-based Training Materials for Advanced Undergraduate Statistics Courses		
Role: Co-supervisor		

## AWARDS, HONOURS, AND SCHOLARSHIPS

---

Joseph-Armand Bombardier Canada Graduate Scholarship, SSHRC, Doctoral	\$105,000	2021-2024
Ontario Graduate Scholarship	\$15,000	2024-2025
Academic Excellence Fund (York University)	\$550	2024
Faculty of Health's Graduate Student Conference Travel Award (York University)	\$500	2024
Academic Excellence Fund (York University)	\$550	2023
Faculty of Health's Graduate Student Conference Travel Award (York University)	\$500	2023
Michael Friendly Award for Quantitative Methodology Research (York University)	\$200	2022
Mirka Ondrack Award for Outstanding Contributions to the Statistical Consulting Service	NA	2022
Academic Excellence Fund (York University)	\$1,000	2022
Faculty of Health's Graduate Student Conference Travel Award (York University)	\$1,000	2022
Jim Rankin Award for Best Student Presentation in Psychology of Data Visualization (York University)	\$100	2022
Canadian Psychological Association's Scientific Affairs Committee Student Research Grant	\$1,500	2022

Student Travel Award, Quantitative Methods Section of the Canadian Psychological Association	\$100	2021
Toronto Metropolitan Graduate Scholarship (TMU)	\$15,000	2020-2021
Joseph-Armand Bombardier Canada Graduate Scholarship, SSHRC, Master's (TMU)	\$17,500	2019-2020
Joseph-Armand Bombardier Canada Graduate Scholarship, SSHRC, Master's (York University; declined)	\$17,500	2019-2020
Ontario Graduate Scholarship, Master's (York University; declined)	\$15,000	2019-2020
Dean's Honour Roll Membership with Distinction (York University)	NA	2012-2016
Continuing Student Scholarship (York University)	\$1,000	2012, 2014
Dr. Percy and Bernice Singer Award (York University)	\$1,000	2013

## PEER-REVIEWED PUBLICATIONS ( $n = 12$ )

underlined names indicate a co-supervised student coauthor when the research was conducted

- Alter, U.**, Too, M. A., & Cribbie, R. A. (2024). Navigating the Bayes Maze: The Psychologist's Guide to Bayesian Statistics, a Hands-On Tutorial with R Code. [Accepted]. *Special Issue of the International Journal of Psychology: Tutorials on Quantitative Methods for Applied Psychological Researchers*. <https://osf.io/preprints/psyarxiv/dh7av>
- Camilleri, C., **Alter, U.**, Cribbie, R. A. (2024). Identifying Influential Observations in Multiple Regression. *The Quantitative Methods for Psychology*. <https://doi.org/10.20982/tqmp.20.2.p096>
- Alter, U.**, Dang, C., Kunicki, Z., & Counsell, A. (2024). The VSSL Scale: A Brief Instructor Tool for Assessing Students' Perceived Value of Software to Learning Statistics. *Teaching Statistics*. <https://doi.org/10.1111/test.12374>
- Beribisky, N., **Alter, U.**, & Cribbie, R. A. (in press). A Multi-Faceted Mess: A Review of Statistical Power Analysis in Psychology Journal Articles. *Meta-Psychology*. Advanced online publication. <https://doi.org/10.31234/osf.io/3bdfu>
- D'Amico, D., **Alter, U.**, Laurin, D., Ferland, G., & Fiocco, A. J. (2024). Examining a Healthy Lifestyle as a Moderator of the Relationship Between Psychological Distress and Cognitive Decline Among Older Adults in the Nuage Study. *Gerontology*. 1-11. Online ahead of print. <https://doi.org/10.1159/000535978>
- Lohmann, A., Luijken, K., **Alter, U.**, Claramunt Gonzalez, J., Clouth, F., Fossum, J.L., Heslen, L., Huizing, A., Ketelaar, J., Montoya, A.K., Nab, L., Nijman, R.C.C., Penning de Vries, B.B.L., Tibbe, T.D., Wang, Y.A., Groenwold, R.H.H. (2024). Replicability of Simulation Studies for the Investigation of Statistical Methods: The RepliSims Project. *Royal Society Open Science*. 11: 231003. <http://doi.org/10.1098/rsos.231003>
- Alter, U.**, & Counsell, A. (2023). Determining Negligible Association in Regression. *The Quantitative Methods for Psychology*. 19(1): 59-83. <https://doi.org/10.20982/tqmp.19.1.p059>
- D'Amico, D., **Alter, U.**, & Fiocco, A. J. (2023). Cumulative Stress Exposure and Cognitive Function Among Older Adults: The Moderating Role of a Healthy Lifestyle. *The Journals of Gerontology, Series B: Psychological Sciences*, 78(12), 1983-1991. <https://doi.org/10.1093/geronb/gbad116>
- Di Bartolomeo, A. A., **Alter, U.**, Olson, D. A., Cooper, M. B., Boritz, T., & Westra, H. A. (2023). Predicting Resistance Management Skill from Psychotherapy Experience, Intellectual Humility and Emotion Regulation. *Psychotherapy Research*, 34(7), 885-898. <https://doi.org/10.1080/10503307.2023.2280240>
- Terry, J., Ross, R. M., Nagy, T., Salgado, M., Garrido-Vásquez, P., Sarfo, J. O., ... **Alter, U.**, ... Field, A. P. (2023). Data from an International Multi-Centre Study of Statistics and Mathematics Anxieties and Related Variables in University Students (the SMARVUS Dataset). *Journal of Open Psychology Data* 11: 8, 1-25. <https://doi.org/10.5334/jopd.80>

- Farmus, L., Beribisky, N., Martinez Gutierrez, N., **Alter, U.**, Panzarella, E., & Cribbie, R. A. (2023). Effect size reporting and interpretation in social personality research. *Current Psychology*, 42(18), 15752–15762. <https://doi.org/10.1007/s12144-021-02621-7>
- Spreng, R. N., Setton, R., **Alter, U.**, Cassidy, B. N., Darboh, B., DuPre, E., Kantarovich, K., Lockrow, A. W., Mwilambwe-Tshilobo, L., Luh, W., Kundu, P., & Turner, G. R. (2022). Neurocognitive Aging Data Release with Behavioral, Structural and Multi-echo Functional MRI Measures. *Scientific Data*, 9(1), 119. <https://doi.org/10.1038/s41597-022-01231-7>

## MANUSCRIPTS UNDER REVIEW (*n* = 4)

---

- Alter, U.**, Crone, G., Camilleri, C., & Counsell, A. (2024). *(Open) Science Fiction: Reasons Why Psychology Researchers in North America Rarely Practice Open Science Even When They Support it?* [Manuscript Submitted]. Canadian Psychology / Psychologie canadienne. [https://osf.io/5mn2x/?view\\_only=1b9bd7303e81463fbc88a2e05816190e](https://osf.io/5mn2x/?view_only=1b9bd7303e81463fbc88a2e05816190e)
- Crone, G., **Alter, U.**, & Counsell, A. (2024). *How do North American researchers engage with statistical content? Perceptions of utility and necessity of various statistics resources.* [Manuscript Submitted]. Canadian Journal of Behavioural Science / Revue canadienne des sciences du comportement.
- Too, M. A., **Alter, U.**, & Flora, D. B. (2024). *Modelling Count Data in Psychological Research: An Applied Tutorial.* [Second round of review]. Special Issue of the International Journal of Psychology: Tutorials on Quantitative Methods for Applied Psychological Researchers.
- Martinez Gutierrez, N. DeSouza, J., **Alter, U.**, Bell, S., Beribisky, N., Farmus, L., Tu, E., & Cribbie, R. A. (2024). *Multiplicity Control in Psychological Research: A Systematic Review of Applied Practices.* [Manuscript Submitted]. Canadian Psychology / Psychologie canadienne

## SOFTWARE DEVELOPMENT (*n* = 1)

---

- Cribbie, R. A., **Alter, U.**, Beribisky, N., Chalmers, R. P., Counsell, A., Farmus, L., Martinez Gutierrez, N., Ng, V. (2022). negligible: R package for negligible effect/equivalence testing. <https://cran.r-project.org/web/packages/negligible/index.html>. [Click here for vignettes].

## TEACHING EXPERIENCE

---

### GRADUATE

- |  |             |
|--|-------------|
| <b>Teaching Assistant, Multilevel Modeling</b><br><i>York University, Toronto, Ontario</i>   | Spring 2023 |
| <b>Course Director, Introduction to R short course</b><br><i>York University, Toronto, Ontario</i>                                       | Spring 2022 |
| <b>Teaching Assistant, Introduction to Systematic Reviews and Meta-Analysis short course</b><br><i>York University, Toronto, Ontario</i> | Winter 2022 |
| <b>Teaching Assistant, Introduction to R short course</b><br><i>York University, Toronto, Ontario</i>                                    | Fall 2021   |
| <b>Teaching Assistant, Statistics and Research Design II</b><br><i>Toronto Metropolitan University, Toronto, Ontario</i>                 | Winter 2021 |
| <b>Teaching Assistant, Statistics and Research Design I</b><br><i>Toronto Metropolitan University, Toronto, Ontario</i>                  | Fall 2020   |

## UNDERGRADUATE

<b>Course Director, Intermediate Statistics Laboratory II</b> ( <a href="#">syllabus</a> ) <i>York University, Toronto, Ontario</i>	Winter 2025
<b>Teaching Assistant, Statistical Methods I and II</b> <i>York University, Toronto, Ontario</i>	Fall 2023-Winter 2024
<b>Tutorial Lead, Statistical Methods II</b> <i>York University, Toronto, Ontario</i>	Winter 2023
<b>Tutorial Lead, Statistical Methods I and II</b> <i>York University, Toronto, Ontario</i>	Fall 2021-Winter 2022
<b>Teaching Assistant, Fundamentals of Regression short course</b> <i>York University, Toronto, Ontario</i>	Fall 2021
<b>Teaching Assistant, Psychology of Sports</b> <i>Toronto Metropolitan University, Toronto, Ontario</i>	Fall 2019

SUPERVISION AND MENTORSHIP

---

## Undergraduate Honours Thesis Students (Co-Supervisor)

Liran Lemud: <i>A Defense of the Welch Test on Trimmed Means: Getting the Hypotheses Correct</i>	2024-2025
Victoria Celio: <i>Comparing Approaches to Teaching Introductory Statistics in Psychology</i>	2023-2024
Carmel Camilleri: <i>Identifying Influential Observations in Multiple Regression</i>	2022-2023

## Psychology Undergraduate Mentorship Program (PUMP) Students

Abdulqadir Isaak	2024-2025
Rythm Bansal	2024-2025
Kentaro Suzuki	2022-2023
Gabriel Crone	2021-2022

PROFESSIONAL WORKSHOPS ( $n = 3$ )

---

- Alter, U.**, & Martinez Gutierrez, N. (2022, June 17-19). *Introduction to R*. [Workshop]. Canadian Psychological Association 83rd Annual National Convention, Calgary, AB, Canada. <https://osf.io/6g4js/>
- Adkins, M. C., **Alter, U.**, Beribisky, N., Chalmers, R. P., & Wang, Y. A. (2021, June 23). *Understanding and Incorporating Data Simulation into the Research Pipeline: A Practical Guide for the Novice Simulator* [workshop]. Society for the Improvement of Psychological Science Annual Conference, virtual/remote. <https://osf.io/43zfq/>
- Adkins, M. C., **Alter, U.**, Beribisky, N., & Chalmers, R. P. (2021, February 19). *So, You Want to Be a SimDesign(er)?* [workshop]. ouR Coding Club Workshop Series, virtual/remote, <https://osf.io/tc6ga/>

## CONFERENCE PRESENTATIONS AND POSTERS (*n* = 38)

---

- Counsell, A., **Alter, U.**, Dang, C., & Kunicki, Z. (2024, December 11-12). *The VSSL Scale: A Brief Instructor Tool for Assessing Students' Perceived Value of Software to Learning Statistics*. [Paper presentation]. Teaching to Enhance Research Methods & Statistics in Psychology (PsychTERMS) Annual Virtual Conference.
- Too, M.A., **Alter, A.**, & Cheng, J.T. (2024, October). *Humility Promotes Prestige-Based Status: Evidence from ad hoc and naturalistic collaborative groups*. [Paper presentation]. Darwin Day Annual Meeting, Brock University, Ontario, Canada.
- Elmadbak, R., Boritz, T., **Alter, U.**, Eubanks, C., Euler, S., Babl, A., & McMain, S. (2024, June 26-29). *Investigating the Relationship Between Defenses and the Therapeutic Alliance in Dialectical Behaviour Therapy for Borderline Personality Disorder*. [Poster Presentation]. Society for Psychotherapy Research 55th International Annual Meeting, Ottawa, ON, Canada.
- Cooper, M.B., Di Bartolomeo, A. A., Westra, H.A., **Alter, U.**, Olson, D. A., & Boritz, T. (2024, June 26-29). *Examining Effects of Therapist Experience, Training, and Clinical Activities on Facilitative Interpersonal Skills (FIS) Performance*. [Paper presentation]. Society for Psychotherapy Research (SPR) 55th Annual International Conference, Ottawa, Canada.
- Truong, M., S., Crone, G., **Alter, U.**, & Choi, J. (2024, June 23-25). *Planting Decision Trees: Human-Friendly Interpretation of Monte Carlo Simulations, Multiverse Analyses and Multivariate Posterior Distributions*. [Poster presentation]. The Modern Modeling Methods 10<sup>th</sup> Annual Convention, Storrs, CT, United States.
- Celio, V. M., **Alter, U.**, Martin, J. (2024, June 21-23). *Comparing Approaches to Teaching Introductory Statistics in Psychology*. [Poster presentation]. Canadian Psychological Association 85th Annual National Convention, Ottawa, ON, Canada.
- Martinez-Gutierrez, N., Dsouza, J., **Alter, U.**, Beribisky, N., Farmus, L., Tu, E., & Cribbie, R. (2024, June 21-23). *Evaluating Multiplicity Control in Psychological Research*. [Paper presentation]. Canadian Psychological Association 85th Annual National Convention, Ottawa, ON, Canada.
- Alter, U.** & Chalmers, R. P. (2024, June 21-23). *IWEAP for Theta: A Robust Method for Latent Trait Estimation in Item Response Theory*. [Paper presentation]. Canadian Psychological Association 85th Annual National Convention, Ottawa, ON, Canada. <https://osf.io/vtqdm/>. [Slides](#).
- Truong, M., S., Crone, G., **Alter, U.**, & Choi, J. (2024, June 21-23). *Planting Decision Trees: Human-Friendly Interpretation of Monte Carlo Simulations, Multiverse Analyses and Multivariate Posterior Distributions*. [Poster presentation]. Canadian Psychological Association 85th Annual National Convention, Ottawa, ON, Canada.
- Cooper, M., Di Bartolomeo, A. A., Westra, H. **Alter, U.**, Olson, D. A., Bortiz, T. (2024, June 21-23). *Investigating the Relationship between Psychotherapists' Difficulties in Emotion Regulation and Facilitative Interpersonal Skills (FIS)*. [Snapshot presentation]. Canadian Psychological Association 85th Annual National Convention, Ottawa, ON, Canada.
- Too, M.A., **Alter, A.**, & Cheng, J.T. (2024, May). *Humility Promotes Prestige-Based Status: Evidence from Ad Hoc and Naturalistic Collaborative Groups*. [Paper presentation]. York and University of Toronto Social Personality Areas Annual Conference, York University, Ontario, Canada.
- Celio, V. M., **Alter, U.**, Martin, J. (2024, May 10). *Comparing Approaches to Teaching Introductory Statistics in Psychology*. [Poster presentation]. Conference for Undergraduate Health Research (CUHR) 2024, Toronto, ON, Canada.
- Smith, O. E., Boritz, T. Z., **Alter, U.**, Eubanks, C. F., & McMain, S. F. (2024, April 11-12). *The Effects of Therapist Mindfulness on the Therapeutic Alliance and Patient Outcome in Dialectical Behaviour Therapy For Borderline Personality Disorder*. [Poster presentation]. The Society for the Exploration of Psychotherapy Integration 40<sup>th</sup> Annual Meeting, the Summit on the Future of Psychotherapy Integration, Virtual.
- D'Amico, D., **Alter, U.**, & Fiocco, A. (2023, October 26-28). *Psychological Stress, Healthy Lifestyle Behaviours, and Cognitive Health Among Older Adults: Findings from Two Longitudinal Cohort Studies*. [Presentation accepted]. Canadian Association on Gerontology 53<sup>rd</sup> Annual Scientific and Educational Meeting, Toronto, ON, Canada.



- Luijken, K., Lohmann, A., **Alter, U.**, Claramunt Gonzalez, J., Clouth, F., Fossum, J.L., Heslen, L., Huizing, A., Ketelaar, J., Montoya, A.K., Nab, L., Nijman, R.C.C., Penning de Vries, B.B.L., Tibbe, T.D., Wang, Y.A., Groenwold, R.H.H. (2023, August 27-31). *Replicability of Simulation Studies for the Investigation of Statistical Methods: The RepliSims Project*. [Poster presentation]. 44<sup>th</sup> Annual Conference of the International Society for Clinical Biostatistics, Milan, Italy.
- Martinez Gutierrez, N., DeSouza, J., Beribisky, N., **Alter, U.**, Farmus, L. & Cribbie, R. A. (2023, June 27-29). *Evaluating the Multiplicity Control Practices of Psychology Researchers*. [Poster presentation]. The Modern Modeling Methods 9<sup>th</sup> Annual Convention, Storrs, CT, United States.
- Alter, U.** & Chalmers, R. P. (2023, June 27-29). *Item-Weighted Expected a Posteriori Method for Improved Latent Trait Estimation in Item Response Theory*. [Poster presentation]. The Modern Modeling Methods 9<sup>th</sup> Annual Convention, Storrs, CT, United States.
- Alter, U.**, Crone, G., Camilleri, C., Counsell, A. (2023, June 22-25). *The Perceived Utility and Necessity of Statistics Training Outside of Ph.D. Programs*. in A. Counsell (Chair), Attitudes, Barriers, and Training in Open Science Research Practices [Symposium], Canadian Psychological Association 84th Annual National Convention, Toronto, ON, Canada.
- Camilleri, C., Crone, G., **Alter, U.**, Counsell, A. (2023, June 22-25). *Statistics Attitudes, Research Practices, and Barriers to Engaging in Open Science*. in A. Counsell (Chair), Attitudes, Barriers, and Training in Open Science Research Practices [Symposium], Canadian Psychological Association 84th Annual National Convention, Toronto, ON, Canada.
- Alter, U.**, Friendly, M. (2023, June 22-25). *Raising the Bar Graph: Upgrading to Interactive Dynamic Data Visualizations in Psychology* [Conference presentation]. Canadian Psychological Association 84th Annual National Convention, Toronto, ON, Canada.
- Camilleri, C., **Alter, U.**, Cribbie, R. A. (2023, June 22-25). *Identifying Influential Observations in Multiple Regression*. [Poster presentation], Canadian Psychological Association 84th Annual National Convention, Toronto, ON, Canada.
- Beribisky, N., **Alter, U.**, & Cribbie, R. A. (2023, May 3). *The Earth is Not Round,  $p > .05$ : Equivalence Testing in Statistics Education*. Researchers of Statistics Education Network Virtual Conference. <https://www.rose-network.org/events/rose-2023>
- Alter, U.**, & Martinez Gutierrez, N. (2022, June 17-19). *Introduction to R*. [Conference workshop]. Canadian Psychological Association 83rd Annual National Convention, Calgary, AB, Canada. <https://osf.io/6g4js/>
- Martinez Gutierrez, N., **Alter, U.**, Beribisky, N., Farmus, L. & Cribbie, R. A. (2022, June 17-19). *An R Package for Negligible Effect Testing: Graphing a Novel Effect Size Measure*. [Paper within a symposium accepted]. Canadian Psychological Association 83rd Annual National Convention, Calgary, AB, Canada.
- Alter, U.**, Farmus, L., & Counsell, A. (2021, June 7-25). *A Psychometric Evaluation of the Statistical Software Experiences Scale*. [Poster presentation]. Association for Psychological Science 2021 Virtual Convention.
- Dang, C., **Alter, U.**, Kunicki, Z., & Counsell, A. (2021, June 7-25). *Attitudes Toward SPSS Scale: A Psychometric Evaluation to Help Facilitate Student Learning*. [Poster presentation]. Association for Psychological Science 2021 Virtual Convention.
- Alter, U.**, & Counsell, A. (2021, June 7-11). *Equivalence Testing for Multiple Regression*. [Poster presentation]. Canadian Psychological Association 82nd Annual National Convention, virtual conference.
- Counsell, A., Kunicki, Z., & **Alter, U.** (2020, June 25-26). *Hypothesis Testing is Not Enough! Revamping the Undergraduate Statistics Course Curricula in Psychology*. [Conference session]. A Meeting of Methodologies: Advancing Methods Development, Application, and Teaching in Psychology, the Behavioural, and Social Sciences 1st Annual International Convention, Burnaby, BC, Canada, [http://www.sfu.ca/content/dam/sfu/psychology/research/mml/AMOM\\_2020\\_program.pdf](http://www.sfu.ca/content/dam/sfu/psychology/research/mml/AMOM_2020_program.pdf)
- Kunicki, Z., Counsell, A., & **Alter, U.** (2020, June 25-26). *The Only Constant is Change: How Do We Encourage the Use of Recommended Statistical Methods as They Become Available?* [Conference session]. A Meeting of Methodologies: Advancing Methods Development, Application, and Teaching in Psychology, the Behavioural, and Social Sciences 1st Annual International Convention, Burnaby, BC, Canada, [http://www.sfu.ca/content/dam/sfu/psychology/research/mml/AMOM\\_2020\\_program.pdf](http://www.sfu.ca/content/dam/sfu/psychology/research/mml/AMOM_2020_program.pdf)

- Alter, U., & Counsell, A.** (2020, May 27-30). *Equivalence Testing for Multiple Regression*. [Poster presentation]. Canadian Psychological Association 81st Annual National Convention, Montréal, QC, Canada. (Conference cancelled due to COVID-19)
- Counsell, A., Campbell, L., **Alter, U.**, & Adkins, M. (2020, June 21-23). *Increasing Awareness and Adoption of Open Science Practices*. [Conference session]. Society for the Improvement of Psychological Science 5th Annual International Meeting, Victoria, BC, Canada, <https://www.improvingpsych.org/SIPS2020/> (Conference cancelled due to COVID-19)
- Chiacchia, D. J., **Alter, U.**, & Cribbie, R. A. (2021, July 18-23). *The Prevalence and Magnitude of Misleading Visualizations in Social and Personality Psychology*. [Poster presentation]. 32nd International Congress of Psychology, Prague, Czech Republic.
- Beribisky, N., **Alter, U.**, & Cribbie, R. A. (2018, May 24-27). *A review of Statistical Power Analysis in Psychology Journal Articles*. [Poster presentation] Association for Psychological Science Annual Convention, San Francisco, CA, United States.
- Farmus, L., **Alter, U.**, Beribisky, N., Martinez Gutierrez, N., Panzarella, E., & Cribbie, R. A. (2020, May 27-30). *Adherence to Effect Size Reporting Practices in Current Psychological Research*. in A. Richard (Chair), Effect sizes and confidence intervals: Current practices and recommendations for improvement [Symposium], Canadian Psychological Association 81st Annual National Convention, Montréal, QC, Canada, <https://eventmobi.com/cpa2020/agenda/00000000-0000-0000-0000-4147454e4441/33339274-884b-4d6c-ae8c-3f94575a4c45>
- Beribisky, N., Panzarella, E., Martinez Gutierrez, N., Farmus, L., **Alter, U.**, & Cribbie, R. A. (2020, May 27-30). *Comparing Effect Size Reporting and Interpretation Practices Across Social-Personality Journals*. [Poster presentation]. Canadian Psychological Association 81st Annual National Convention, Montréal, QC, Canada, <https://eventmobi.com/cpa2020/agenda/00000000-0000-0000-0000-4147454e4441/d835677a-efb3-4d3a-bfcb-7a8d024c38c2>
- Beribisky, N., **Alter, U.**, & Cribbie, R. A. (2019, May 31-June 2). *A Review of Traditional A Priori Power Analysis*. In R. Cribbie (Chair), Modern Issues in Transitioning from NHST to Estimation-Based Statistics, [Symposium], Canadian Psychological Association 80th Annual National Convention, Halifax, NS, Canada. [https://cpa.ca/docs/File/Convention/2019/CPA-2019-Full\\_Program\\_Abstracts-DIGITAL\\_FINAL.pdf](https://cpa.ca/docs/File/Convention/2019/CPA-2019-Full_Program_Abstracts-DIGITAL_FINAL.pdf)
- Alter, U.**, van den Brink, C., & Turner, G. R. (2016, May 12). *Sex Differences in the Influence of Aspects of Physical Health on Neurocognitive Aging*. [Poster presentation]. YU-CARE & Canadian Association on Gerontology-Student Connection Symposium: Multidisciplinary Perspectives in Aging Research, Toronto, ON, Canada, [https://yucare.info.yorku.ca/files/2016/05/Conference\\_Program\\_May12\\_2016.pdf?x95179](https://yucare.info.yorku.ca/files/2016/05/Conference_Program_May12_2016.pdf?x95179)
- Alter, U.**, & Turner, G. R. (2016, May 6). *The Effects of Cardio-Respiratory Fitness, Physical Activity, and Sex Differences on Brain Structure and Executive Functioning in Older Adults*. [Conference session]. The Annual Ontario Psychology Undergraduate Thesis Conference at Wilfrid Laurier University, Waterloo, ON, Canada.

## INVITED TALKS (n = 13)

---

- Alter, U.**, & Cribbie, R. A. (2025, April 7). *Shrinking Concerns Over Multiple Testing: Revisiting the Multiplicity Problem from a Multilevel Modeling Perspective*. Quantitative Methods Area Forum, York University, Toronto, ON, Canada.
- Alter, U.** (2024, September 27). *Bayesian Inference*. York University Statistical Consulting Service (SCS) Forum. [Slides](#).
- Alter, U.** & Chalmers, R. P. (2024, April 1). *Unveiling IWEAP: A Robust Ability Estimation Approach in Item Response Theory*. [Paper presentation]. Quantitative Methods Area Forum, York University, Toronto, ON, Canada. [Slides](#). [Recording link](#).
- Alter, U.** (2023, November 17). *Bayesian Solutions to Measurement Error and Missing Data*. York University Statistical Consulting Service (SCS) Forum. [Slides](#).
- Beribisky, N., **Alter, U.**, & Cribbie, R. A. (2023, May 3). *The Earth is Not Round,  $p > .05$ : Equivalence Testing in Statistics Education*. Researchers of Statistics Education Network Virtual Conference. <https://www.rose-network.org/events/rose-2023>.

- Cribbie, R. A., Camilleri, C., & **Alter, U.** (2023, March 27). *Identifying Influential Observations in Multiple Regression*. Quantitative Methods Area Forum, York University, Toronto, ON, Canada.
- Alter, U.** & Friendly, M. (2023, January 23). *Raising the Bar Graph: Incorporating Interactive Dynamic Data Visualizations in Psychology*. Quantitative Methods Area Forum, York University, Toronto, ON, Canada. [Slides](#).
- Alter, U.** & Counsell, A. (2021, October 18). *Equivalence Testing for Multiple Regression*. Quantitative Methods Area Forum, York University, Toronto, ON, Canada.
- Alter, U.**, (2021, July 5). *Considerations for Applying and Choosing a Canadian Graduate Program in Psychology*. [10-min talk]. Borderline Personality Disorder Clinic's Lunch & Learn Series, Centre for Addiction and Mental Health (CAMH), Toronto, ON, Canada.
- Alter, U.** & Counsell, A. (2020, October 6). *Identifying the Reasons Behind Poor Research Practices Among Canadian Psychology Researchers and the Effects of Voluntary Training on Adherence to Methodological Recommendations*. [Area talk]. Social Area Meeting of the Psychology Department, Toronto Metropolitan University, Toronto, ON, Canada.
- Alter, U.** & Counsell, A. (2020, March 1). *Evaluating Equivalence Testing Methods for Identifying Practically Negligible Predictors in Multiple Regression*. [Area talk]. Social Area Meeting of the Psychology Department, Toronto Metropolitan University, Toronto, ON, Canada.
- Cribbie, R. A., Panzarella, E., Farmus, L., Martinez Gutierrez, N., Beribisky, N., & **Alter, U.** (2020, February 24). *Effect Size Reporting in Social-Personality Research: The Good, the Bad, and the Ugly*. [Paper presentation]. Quantitative Methods Area Forum, York University, Toronto, ON, Canada.
- Alter, U.**, van den Brink, C., & Turner, G. R. (2016, April). *Sex Differences in the Influence of Aspects of Physical Health on Neurocognitive Aging*. [10-min talk]. The Undergraduate Psychology Thesis Presentation Conference at York University, Toronto, ON, Canada.

## MANUSCRIPTS IN PREPARATION ( $n = 7$ )

---

- Alter, U.** & Cribbie, R. A. (in prep). *Shrinking Concerns Over Multiple Testing: Revisiting the Multiplicity Problem from a Multilevel Modeling Perspective*. Target outlet: TBD
- Alter, U.** & Chalmers, R. P. (in prep). *Item-Weighted Expected a Posteriori Method for Improved Latent Trait Estimation in Item Response Theory*. Target outlet: TBD
- Celio, V. M., **Alter, U.**, Martin, J. (in prep). *Comparing Approaches to Teaching Introductory Statistics in Psychology*. Target outlet: SERJ.
- Smith, O., Boritz, T., **Alter, U.**, Eubanks, C. F., & McMain, S. (in prep). *The Effects of Therapist Mindfulness on the Therapeutic Alliance and Patient Outcome in Dialectical Behaviour Therapy for Borderline Personality Disorder*. Target outlet: TBD.
- Too, M., **Alter, U.**, Cheng, J. T. (in prep). *The Relationship between Humility and Prestige at Zero Acquaintance RAPM*. Target outlet: TBD.
- LaBrish, C., **Alter, U.**, Kleindienst, N., Blacher, A., & McMain, S. (in prep). *IRT Analysis of the Borderline Symptom List 23 (BSL-23) in Both German and Canadian Samples*. Target outlet: TBD
- LaBrish, C., **Alter, U.**, & McMain, S. (in prep). *Psychometric Evaluation of the Difficulty in Emotion Regulation (DERS) Among Patients Suffering from Borderline Personality Disorder (BPD)*. Target outlet: TBD

## ACADEMIC AND RESEARCH EXPERIENCE

---

### Research Associate

[Robust Statistics Lab](#), York University, Toronto ON

2018 - Present



<b>Research Assistant</b> <a href="#"><i>Psychology and Statistics Education Research (PASER) lab</i></a> , Toronto Metropolitan University, Toronto, ON	<b>2019 - Present</b>
<b>Junior Statistician</b> <a href="#"><i>Borderline Personality Disorder Clinic</i></a> , Centre for Addiction and Mental Health (CAMH), Toronto, ON	<b>2021 - 2023</b>
<b>Practicum Student</b> <a href="#"><i>Borderline Personality Disorder Clinic</i></a> , Centre for Addiction and Mental Health (CAMH), Toronto, ON	<b>2020 - 2021</b>
<b>Joint Lab Manager</b> <a href="#"><i>Cognitive Neuroscience &amp; Neurointervention (C.N.N.) Lab and Cognition &amp; Aging Neuroscience (C.A.N.) Lab</i></a> , York University, Toronto, ON	<b>2016 - 2018</b>
<b>Research Assistant</b> Cognition & Aging Neuroscience (C.A.N.) Lab, York University, Toronto, ON	<b>2017 - 2018</b>
<b>Research Associate</b> Cognitive Neuroscience and Neuro-intervention (C.N.N.) Lab, York University, Toronto, ON	<b>2014 - 2018</b>

## AD HOC REVIEWER

---

- International Journal of Psychology (Special Issue: Tutorials on Quantitative Methods for Applied Psychological Researchers)
- Canadian Psychological Association, Quantitative Methods Section (Convention abstract submissions)

## ACADEMIC SERVICE

---

### EXTERNAL

<b>Equity, Diversity, and Inclusion (EDI) Committee Member</b> <a href="#"><i>Researchers of Statistics Education Network (RoSE)</i></a>	<b>2023 - Present</b>
<b>Communications Officer, Quantitative Methods Executive Committee</b> <a href="#"><i>Quantitative Methods Section of the Canadian Psychological Association (CPA)</i></a>	<b>2024 - Present</b>
<b>Conference Permanent Committee Member</b> <a href="#"><i>Researchers of Statistics Education Network (RoSE)</i></a>	<b>2023 - Present</b>
<b>Cofounder and Coordinator</b> <a href="#"><i>ouR Coding Club!</i></a>	<b>2020 - 2023</b>
<b>Student Representative, Quantitative Methods Executive Committee</b> <a href="#"><i>Quantitative Methods Section of the Canadian Psychological Association (CPA)</i></a>	<b>2020 - 2022</b>
<b>Social Media and Outreach Committee</b> <a href="#"><i>Society for the Improvement of Psychological Science (SIPS)</i></a>	<b>2021 - 2022</b>
<b>CPA Student Representative (Graduate Program) at York University</b> <a href="#"><i>Canadian Psychological Association (CPA)</i></a>	<b>2021 - 2023</b>
<b>Methodology and Statistics Advisor</b> <a href="#"><i>Free Our Knowledge</i></a> Platform	<b>2020 - 2021</b>

**CPA Student Representative (Graduate Program) at Toronto Metropolitan University** 2020 – 2021  
[Canadian Psychological Association \(CPA\)](#)

#### DEPARTMENTAL

**Graduate Student Representative, Cyclical Program Review (CPR)** 2024  
*Department of Psychology, York University, Toronto, ON*

**Treasurer, Psychology Graduate Student Association (PGSA)** 2021 - Present  
*Department of Psychology, York University, Toronto, ON*

**Graduate Student Representative, Tenure and Promotion Adjudication Committee** 2023, 2024  
*Department of Psychology, York University, Toronto, ON*

**Undergraduate Thesis Poster Competition Judge, Specialized Honours Program** 2023  
*Department of Psychology, York University, Toronto, ON*

**Cohort Representative, Graduate Student Anti-Racism Initiative (GSARI)** 2020 - 2021  
*Department of Psychology, Toronto Metropolitan University, Toronto, ON*

**Surveying Subgroup Member, Equity, Diversity, and Inclusion (EDI) Task Force** 2020  
*Department of Psychology, Toronto Metropolitan University, Toronto, ON*

**YU-CARE Committee** 2016 - 2017  
*York University Centre for Aging Research and Education (YU-CARE), York University, Toronto, ON*

#### STATISTICAL CONSULTING

---

**Statistical Consultant** 2021 - Present  
[Statistical Consulting Service \(SCS\)](#), York University, Toronto, ON

#### PROFESSIONAL ASSOCIATION MEMBERSHIP

---

Association for Psychological Science (Student Member)

Canadian Psychological Association (Quantitative Methods; Student Affiliate)

Society for Improving Psychological Sciences (Student Member)

Statistical Society of Canada (Student Member)

#### PROGRAMMING LANGUAGES

---

R

Python

#### MARKUP LANGUAGES

---

LaTeX

HTML (basic skills)

CSS (basic skills)

---

## **ANALYTICAL SOFTWARE, PACKAGE MANAGEMENT, RENDERING, OR SOURCE-CODE EDITORS**

RStudio/Posit/Quarto

Anaconda

Jupyter notebook

Visual Studio Code

SPSS

JASP

Jamovi

Git/GitHub/GitKraken/GitLab

G\*Power

---

## **GRAPHICAL DESIGN SOFTWARE**

Adobe Photoshop

Adobe Illustrator

Inkscape

Procreate

---

## **RECENT PROFESSIONAL DEVELOPMENT**

### **Course Design Intensive**

*Teaching Commons, York University*

### **How Do You Know Teaching Happens?**

*Teaching Commons, York University*

### **How Do You Know Learning Happens?**

*Teaching Commons, York University*

### **Introduction to Overleaf**

*Quantitative Methods Workshop Series (QMWS), York University*

### **Artificial Intelligence in Education**

*Teaching Commons, York University*

### **Data Analytics and Machine Learning Using R**

*Quantitative Methods Workshop Series (QMWS), York University*

**Introduction to Bayesian Analysis**

*Quantitative Methods Workshop Series (QMWS), York University*

**Learning and Teaching in Higher Education I**

*Centre for Excellence in Learning and Teaching, Toronto Metropolitan University*

**Introduction to Monte Carlo Simulation Experiments**

*Quantitative Methods Workshop Series (QMWS), York University*

**COMMUNITY ENGAGEMENT**

---

**PUMP Mentor**

**2021 - Present**

[\*Psychology Undergraduate Mentorship Program \(PUMP\)\*](#) at York University, Toronto, Ontario

**Homework Club Tutor and Mentor**

**2018 - 2020**

[\*Family Resource Centre\*](#), Vaughan, Ontario

**Art Program Lead**

**2018 - 2019**

[\*Reena\*](#), Vaughan, Ontario

**Math and Statistics Tutor**

**2013 - 2018**

*Thornhill Community, Vaughan, Ontario*