Steven A. Campbell

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Academic Employment

2023 – **Assistant Professor (Limited Term)** Columbia University

Education

2019 – 2023 **Ph.D. Statistics**, University of Toronto
Thesis title: *Optimization Problems in Model-Free Stochastic Portfolio Theory and Sequential Testing Games*
Advisors: Profs. Ting-Kam Leonard Wong and Yuchong Zhang

2018 – 2019 **M.A. Applied Mathematics**, York University

2017 – 2018 **B.A. Applied Mathematics**, York University

2013 – 2017 **B.B.A. Finance**, York University

Academic Awards and Honours

2022 **Ontario Graduate Scholarship - Doctoral**, Government of Ontario ($15,000 CAD)
Doctoral Early Research Excellence Award, University of Toronto ($1,500 CAD)

2019 **Alexander Graham Bell Canada Graduate Scholarship (CGS D)**, NSERC ($105,000 CAD)

2018 **Alexander Graham Bell Canada Graduate Scholarship (CGS M)**, NSERC ($17,500 CAD)
York University Graduate Scholarship, York University ($4,000 CAD)
Dr. James Wu Prize for Best Honours Thesis, York University ($500 CAD)

2017 **Toronto Dominion Bank Award**, York University ($3,000 CAD)

2016 **The Olympia and Spyros Thomas Scholarship**, York University ($1,200 CAD)

2015 **The Dagonas Family Scholarship**, York University ($1,200 CAD)

2013 **President's Scholarship**, York University ($21,600 CAD)
Awards of Distinction Merit Scholarship, York University ($2,000 CAD)
Governor General's Academic Medal (Bronze), Government of Canada

Publications and Preprints

Academic Articles

1. **S. Campbell** and Y. Zhang, "A mean field game of sequential testing," *In preparation*, 2023.
2. **S. Campbell** and T.-K. L. Wong, "Efficient Convex PCA with applications to Wasserstein geodesic PCA and ranked data," *arXiv preprint arXiv:2211.02990*, 2022.
3. **S. Campbell** and T.-K. L. Wong, "Functional portfolio optimization in stochastic portfolio theory," *SIAM Journal on Financial Mathematics*, vol. 13, no. 2, pp. 576–618, 2022.
4. **S. Campbell** and E. J. Janse van Rensburg, "Lattice star and acyclic branched polymer vertex exponents in 3d," *Journal of Physics A: Mathematical and Theoretical*, vol. 55, no. 1, p. 015 002, 2021.
5. **S. Campbell** and E. J. Janse van Rensburg, "Numerical estimates of square lattice star vertex exponents," *Phys. Rev. E*, vol. 103, p. 052 137, 5 May 2021. DOI: 10.1103/PhysRevE.103.052137.
6. **S. Campbell**, Y. Chen, A. Shrivats, and S. Jaimungal, "Deep learning for principal-agent mean field games," *arXiv preprint arXiv:2110.01127*, 2021.

7. **S. Campbell** and E. J. Janse van Rensburg, "Parallel PERM," *Journal of Physics A: Mathematical and Theoretical*, vol. 53, no. 26, p. 265 005, 2020.

Other Publications

1. **S. Campbell**, "Optimization Problems in Model-Free Stochastic Portfolio Theory and Sequential Testing Games," Ph.D. dissertation, University of Toronto, 2023.
2. **S. Campbell** and K. Whitehead, *Toys 'R' Us Canada: Is Playtime Over?* Ivey Publishing, 2018.
3. K. Whitehead and **S. Campbell**, *Hudson's Bay Company: Restructuring in a Retail Decline*, Ivey Publishing, 2018.

Invited Presentations

2023 — SIAM Conference on Financial Mathematics and Engineering, Philadelphia, PA.
- Probability and Mathematical Finance Seminar, Carnegie Mellon University, Pittsburgh, PA.
- Financial and Actuarial Mathematics Seminar, University of Michigan, Ann Arbor, MI.

2022 — SIAM Annual Meeting, Pittsburgh, PA.
- Statistics Graduate Student Research Day, University of Toronto, Toronto, ON.

2021 — CMS 75th+1 Anniversary Summer Meeting, Canadian Mathematical Society, Virtual.
- Statistics Graduate Student Research Day, Fields Institute, Toronto, ON.
- ACTSCI/MAFI Research Meeting, University of Toronto, Toronto, ON.

Contributed Posters and Presentations

2023 — 64th World Statistics Congress, International Statistical Institute, Ottawa, ON.

2022 — 6th Eastern Conference on Mathematical Finance, Rutgers University, New Brunswick, NJ.

Teaching

2023 – — Linear Regression Models (GU4205), *Columbia University*.

2021 – 2023 — MFI Annual Statistics Bootcamp, *University of Toronto*.

2021 — Fixed Income Fundamentals (FINE 3810), *York University*.

Other Academic Experience

Journal Referee

- Mathematical Finance, Asian Journal of Control.

Student Supervision

2022 — Michael Shen (Graduate Research Assistant), *University of Toronto*.
- John Song (Undergraduate Summer Research Project), *University of Toronto*.

Skills

Languages — English (native), Greek (limited working proficiency), French (elementary proficiency).

Coding — Python, R, C/C++, MATLAB, Maple, LaTeX, VBA.

Last Updated

August 20, 2023