Mario Ghossoub

University of Waterloo
Department of Statistics and Actuarial Science
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Last Updated: Mar. 2024

Personal Canadian citizen – Bilingual (French-English)

Research Interests Equilibria and Pareto-Efficiency in Risk-Sharing Markets, Decentralized Insurance, Optimal Insurance Design, Risk Measurement & Management, Ambiguity and Model Uncertainty, Optimal Transport, Quantitative Behavioral Finance

Professional Designations

- Fellow of the Society of Actuaries (**FSA**)
- Fellow of the Canadian Institute of Actuaries (**FCIA**)
- Chartered Enterprise Risk Analyst (**CERA**)
- Financial Risk Manager (**FRM**) – Certified by the Global Association of Risk Professionals

Academic Experience

- **University of Waterloo** — Sept. 2023 - Aug. 2028
  Sun Life Fellow in International Actuarial Science
- **University of Waterloo** — As of July 2022
  Associate Professor (with tenure) – Dept. of Statistics & Actuarial Science
- **University of Waterloo** — May 2017 - June 2022
  Assistant Professor – Dept. of Statistics & Actuarial Science
- **Concordia University** — As of Sept. 2016
  Affiliate Assistant Professor – Dept. of Mathematics & Statistics
- **Imperial College London** — Aug. 2013 - Aug. 2016
  Assistant Professor – Dept. of Finance
  On leave during the academic year 2015-2016
- **Université de Montréal** — Aug. 2011 - Jul. 2013
  SSHRC Postdoctoral Fellow – Dept. of Economics

Education

- **University of Waterloo**, Ph.D. – Actuarial Science — 2008 - 2011
- **University of Michigan**, M.S. – Mathematics — 2005 - 2006
- **Institut d'Études Politiques de Paris (Sciences Po)** — 2004 - 2005
  Cycle International d'Études Politiques
  Emphasis on Microeconomic Theory, Finance, and Game Theory
- **Notre Dame University**, B.S. – Actuarial Science (*Summa Cum Laude*) — 2000 - 2004

Visiting Positions

- **University of Melbourne** Nov. 2023
  Faculty of Business and Economics – Dept. of Economics
- **Australian National University** Oct-Nov. 2023
  College of Business and Economics – Research School of Economics
- **CREST – ENSAE** April 2022, June-July 2022
  Dept. of Finance and Insurance
- **Centre d'Économie de la Sorbonne** June 2022
  Dept. of Microeconomic Theory
- **KU Leuven** May-June 2022
  Faculty of Economics and Business – Dept. of Accountancy, Finance & Insurance
  Actuarial Research Group
- **Université Catholique de Louvain** Apr-May 2022
  Institute of Statistics, Biostatistics and Actuarial Sciences
- **Université de Montréal** Oct-Nov. 2019
  Centre Interuniversitaire de Recherche en Économie Quantitative (CIREQ)
- **University of Amsterdam** Sept. 2019
  Faculty of Economics and Business - Dept. of Quantitative Economics
- **Chinese University of Hong Kong** Apr. 2019
  Department of Systems Engineering and Engineering Management
- **Northwestern University – Kellogg School of Management** Fall 2012
  Center of Mathematical Studies in Economics and Management
  Dept. of Managerial Economics and Decision Sciences
- **Université de Montréal** – Dept. of Economics Sept. 2010
- **Bocconi University** – Dept. of Decision Sciences Jul. 2010

Publications

1. **Pareto-Efficient Risk Sharing in Centralized Insurance Markets with Application to Flood Risk** (with **Alfred Chong** and **Tim J. Boonen**)
   Journal of Risk and Insurance, Forthcoming
2. **(No-)Betting Pareto Optima under Rank-Dependent Utility**
   (with **Patrick Beissner** and **Tim J. Boonen**)
   Mathematics of Operations Research, Forthcoming
3. **Bounds on Choquet Risk Measures in Finite Product Spaces with Ambiguous Marginals**
   (with **David Saunders** and **Kelvin Shuangjian Zhang**)
   Statistics & Risk Modeling, Forthcoming
4. **Stackelberg Equilibria with Multiple Policyholders**
   (with **Michael B. Zhu**)
   Insurance Mathematics and Economics, 116(1):189-201, 2024
5. **Pareto-Optimal Insurance with an Upper Limit on the Insurer's Exposure**
   (with Oma Coke and **Michael B. Zhu**)
   Scandinavian Actuarial Journal, 2024(3):227-251, 2024

6. **Optimal Insurance for a Prudent Decision Maker under Heterogeneous Beliefs** (with **Wenjun Jiang** and **Jiandong Ren**)
European Actuarial Journal, 13(2):703-730, 2023

7. **Equilibria and Efficiency in a Reinsurance Market** (with **Michael B. Zhu** and **Tim J. Boonen**)
Insurance Mathematics and Economics, 113(1):24-49, 2023

8. **Maximum Spectral Measures of Risk with given Risk Factor Marginal Distributions** (with Jesse Hall and **David Saunders**)
Mathematics of Operations Research, 48(2):1158-1182, 2023

9. **Optimal Insurance under Maxmin-Expected-Utility** (with Corina Birghila and **Tim J. Boonen**)
Finance and Stochastics, 27(2):467-501, 2023

10. **Bowley vs. Pareto Optima in Reinsurance Contracting** (with **Tim J. Boonen**)
European Journal of Operational Research, 307(1):382-391, 2023

11. **Pareto-Optimal Reinsurance under Individual Risk Constraints** (with **Wenjun Jiang** and **Jiandong Ren**)
Insurance: Mathematics and Economics, 107:307-325, 2022

12. **Aggregation of Opinions and Risk Measures** (with **Massimiliano Amarante**)
Journal of Economic Theory, 196:105310, 2021

13. **On the Continuity of the Feasible Set Mapping in Optimal Transport** (with **David Saunders**)
Economic Theory Bulletin, 9:113-117, 2021

14. **Comparative Risk Aversion in RDEU with Applications to Optimal Underwriting of Securities Issuance** (with **Xuedong He**)
Insurance: Mathematics and Economics, 101(1):6-22, 2021

15. **Optimal Reinsurance with Multiple Reinsurers: Distortion Risk Measures, Distortion Premium Principles, and Heterogeneous Beliefs** (with **Tim J. Boonen**)
Insurance: Mathematics and Economics, 101(1):23-37, 2021

16. **Budget-Constrained Optimal Retention with an Upper Limit on the Retained Loss**
Scandinavian Actuarial Journal, 2020(3):245-271, 2020

17. **Bilateral Risk Sharing with Heterogeneous Beliefs and Exposure Constraints** (with **Tim J. Boonen**) – *Finalist of the SCOR/EGRIE Best Paper Award*
ASTIN Bulletin, 50(1):293-323, 2020

18. **Budget-Constrained Optimal Insurance with Belief Heterogeneity**
Insurance: Mathematics and Economics, 89(1):79-91, 2019

19. **On the Existence of a Representative Reinsurer under Heterogeneous Beliefs** (with **Tim J. Boonen**)
Insurance: Mathematics and Economics, 88(1):209-225, 2019

20. **Optimal Insurance under Rank-Dependent Expected Utility**
Insurance: Mathematics and Economics, 87(1):51-66, 2019

21. **Budget-Constrained Optimal Insurance without the Nonnegativity Constraint on Indemnities**
    Insurance: Mathematics and Economics, 84(1):22-39, 2019

22. **A Neyman-Pearson Problem with Ambiguity and Nonlinear Pricing**
    Mathematics and Financial Economics, 12(3):365-385, 2018

23. **Contracting on Ambiguous Prospects**
    (with **Massimiliano Amarante** and **Edmund Phelps**)
    The Economic Journal, 127(606):2241-2262, 2017

24. **Arrow's Theorem of the Deductible with Heterogeneous Beliefs**
    The North American Actuarial Journal, 21(1):15-35, 2017

25. **Optimal Insurance with Heterogeneous Beliefs and Disagreement about Zero-Probability Events**
    Risks, 4(3):29, 2016

26. **Optimal Insurance for a Minimal Expected Retention: The Case of an Ambiguity-Seeking Insurer** - (with **Massimiliano Amarante**)
    Risks, 4(1):8, 2016

27. **Cost-Efficient Contingent Claims with Market Frictions**
    Mathematics and Financial Economics, 10(1):87-111, 2016

28. **Equimeasurable Rearrangements with Capacities**
    Mathematics of Operations Research, 40(2):429-445, 2015

29. **Vigilant Measures of Risk and the Demand for Contingent Claims**
    Insurance: Mathematics and Economics, 61(1):27-35, 2015

30. **Ambiguity on the Insurer's Side: The Demand for Insurance**
    (with **Massimiliano Amarante** and **Edmund Phelps**)
    Journal of Mathematical Economics, 58:71-78, 2015

31. **Static Portfolio Choice under Cumulative Prospect Theory**
    (with **Carole Bernard**)
    Mathematics and Financial Economics, 2(4):277-306, 2010

Other Publications

1. **On Subsidies, Tariffs, and Wholesale Madness**, in *Debating Globalization: International Perspectives on the Global Economic and Social Order*, J.M. Balonze (ed.) – GYAN France, Editions Biliki (2006)

Working Papers

1. **Allocation Mechanisms in Decentralized Exchange Markets with Frictions**
   (with Giulio Principi and **Ruodu Wang**)

2. **A Nonlinear Sandwich Theorem**
   (with Giulio Principi and **Lorenzo M. Stanca**)

3. **Comonotonicity and Pareto Optimality, with Application to Collaborative Insurance**
   (with **Michel Denuit**, **Jan Dhaene**, and **Christian Y. Robert**)

4. **The Multiarmed Bandit Problem Under the Mean-Variance Setting**
   (with Hongda Hu, **Arthur Charpentier**, and **Alexander Schied**)

5. **Bowley-Optimal Convex Premium Principles under Exponential Utility** (with **Bin Li** and Benxuan Shi)
6. **Risk-Constrained Portfolio Choice under Rank-Dependent Expected-Utility** (with **Michael B. Zhu**)
7. **On Belief Singularity and the Optimality of Deductible Indemnity Schedules**
8. **Loss Aversion for Decision under Risk** (with **Michael B. Zhu**)
9. **Pareto-Optimal Innovation Contracts in Closed Form** (with **Massimiliano Amarante** and **Edmund Phelps**)

Grants

- **Casualty Actuarial Society Research Grant** – Cyber Insurance (2022-2023) (with **Michel Denuit**, **Olivier Lopez**, and **Julien Trufin**)
- **MITACS Accelerate** (2021-2022)
- **NSERC Discovery Grant** (2018-2024), Natural Sciences and Engineering Research Council of Canada
- Society of Actuaries / The Actuarial Foundation - Individual Grant
  Managing Model Uncertainty in Insurance-Linked Securities
  (with **Enrico Biffis**)
- **SSHRC Postdoctoral Fellowship**, Social Sciences and Humanities Research Council of Canada, Postdoctoral Fellowship - Held at the University of Montréal (2011 - 2013)
- **NSERC Doctoral Scholarship**, Natural Sciences and Engineering Research Council of Canada, Doctoral Scholarship - Held at the University of Waterloo (2008 - 2011)

Honors and Awards

- **Sun Life Fellow in International Actuarial Science**, University of Waterloo (Sept. 2023 – Aug. 2028)
- **Math Golden Jubilee Research Excellence Award**, University of Waterloo – Faculty of Mathematics (2023)
- **Excellence in Reviewing Award**, Journal of Risk and Insurance (2023)
- **Top Performance in Teaching**, University of Waterloo (Spring 2019)
- **Nomination for a Tier 2 Canada Research Chair**, University of Western Ontario (2017)
  I declined this nomination when I decided to join the University of Waterloo
- **Excellent Teaching Performance Prize**, Imperial College London (2014 - 2015)
- **President's Scholarship**, University of Waterloo (2008 - 2011)
- **Society of Actuaries (SOA) James C. Hickman Scholarship**, Doctoral Scholarship - Held at the University of Waterloo (2010 - 2011)
- **WatRISQ Doctoral Scholarship**, Waterloo Research Institute in Insurance, Securities and Quantitative Finance (2011)
- **WatRISQ Doctoral Scholarship**, Waterloo Research Institute in Insurance, Securities and Quantitative Finance (2010)
- **Mathematics Graduate Experience Award**, University of Waterloo (Fall 2010)
- **University of Waterloo Graduate Scholarship** (Winter 2010)
- **Statistics and Actuarial Science Chair's Award**, University of Waterloo (Fall 2009)
- **IQFI Doctoral Scholarship**, Institute for Quantitative Finance and Insurance – University of Waterloo (2009)

- **Fulbright Scholarship**, U.S. Department of State - Bureau of Cultural Affairs, Held at the University of Michigan (2005 - 2006)
- **Emile Boutmy Scholarship**, Institut d'Études Politiques de Paris – Academic Excellence Scholarship (2004 - 2005)
- **Dean's List of Distinguished Students, and Tuition Scholarship**, Throughout my undergraduate studies (2000 - 2004)

Talks and Seminars

- **Efficiency in Pure-Exchange Economies with Monotone Concave Schur-Concave Utilities**: BIRS Workshop on Optimal Transport and Distributional Robustness (March 2024), Foundations and Applications of Decentralized Risk Sharing (May 2024)
- **Equilibria in Centralized Insurance Markets: Monopolistic vs. Competitive Pricing**: Australian National University, Research School of Economics (Oct. 2023), University of Melbourne, Dept. of Economics (Nov. 2023), GERAD - HEC Montréal (Dec. 2023)
- **Risk Sharing Rules with Frictions**: Foundations and Applications of Decentralized Risk Sharing (May 2023), 26th International Congress on Insurance: Mathematics and Economics (Jul. 2023)
- **Equilibria in Reinsurance Markets: Monopolistic vs. Competitive Pricing**: Concordia University (Dec. 2022)
- **Bowley vs. Pareto Optima in Reinsurance Contracting**: 24th International Congress on Insurance: Mathematics and Economics (Jul. 2021), Centre Interdisciplinaire en Modélisation Mathématique de l'Université Laval (Feb. 2022), Workshop on Risk Measures and Uncertainty in Insurance at the House of Insurance of the University of Hannover (May 2022), 11^{th} Conference in Actuarial Science & Finance on Samos (May 2022), KU Leuven (June 2022), Amsterdam School of Economics (June 2022)
- **No-Betting Pareto Optima** - Bielefeld Stochastic Afternoon: Math Finance session, University of Bielefeld (Apr. 2021), 2021 Annual Meeting of the American Risk and Insurance Association (Aug. 2021), 48th Annual Seminar of the European Group of Risk and Insurance Economists (Sept. 2021)
- **Bilateral Risk Sharing with Heterogeneous Beliefs and Exposure Constraints** - 4th World Risk and Insurance Economics Congress (WRIEC 2020) - 55th Actuarial Research Conference (ARC 2020), Ryerson University (Oct. 2020), University of Connecticut (Nov. 2020)
- **Optimal Reinsurance with Multiple Reinsurers: Distortion Risk Measures, Distortion Premium Principles, and Heterogeneous Beliefs**: 6^{th} Annual Workshop on Insurance Mathematics – WIM (Feb. 2020), Online International Conference in Actuarial Science, Data Science and Finance (Apr. 2020)
- **Optimal Insurance with an Upper Limit on the Retained Loss**: 23^{rd} International Congress on Insurance: Mathematics and Economics (Jul. 2019)
- **Bilateral Risk Sharing with Heterogeneous Beliefs and Exposure Constraints**: Université Laval (Mar. 2019), Hong Kong University (Apr. 2019), 46^{th} Annual Seminar of the European Group of Risk & Insurance Economists (Sept. 2019 – Nominated for the SCOR/EGRIE Best Paper Award), Quantact Research Seminar at Université du Québec à Montréal (Oct. 2019)
- **Optimal Insurance with Belief Heterogeneity**: 22^{nd} International Congress on Insurance: Mathematics and Economics (Jul. 2018), 2^{nd} International Workshop on Optimal (Re)Insurance (Jul. 2018), 53^{rd} Actuarial Research Conference (Aug. 2018), European Actuarial Journal Conference (Sept. 2018), University of Amsterdam - Faculty of Economics and Business (Sept. 2018), Western University (Oct. 2018)

- **Optimal Insurance without the Nonnegativity Constraint on Indemnities: Ambiguity and Belief Heterogeneity**: 2017 CEAR/MRIC Behavioral Insurance Workshop (Dec. 2017)
- **Optimal Insurance: Belief Heterogeneity, Ambiguity, and Arrow's Theorem**: University of Waterloo (Jan. 2017), Western University (Dec. 2016), University of Michigan, Financial & Actuarial Mathematics Seminar (Apr. 2016)
- **Insurer Ambiguity and the Demand for Insurance**: 2014 CEAR/MRIC Behavioral Insurance Workshop
- **Cost-Efficient Contingent Claims under Nonlinear Pricing**: 2013 Quantitative Behavioural Finance Conference - University of Waterloo (Apr. 2013); 2013 Mathematical Finance Days - Institut de Finance Mathématique de Montréal (May 2013); 13th SAET Conference on Current Trends in Economics (Jul. 2013); University of Manchester - Economic Theory Seminar (Apr. 2014); 2014 Risk, uncertainty and Decision Conference - Warwick Business School; 2014 Foundations of Utility and Risk Conference; 2014 World Congress of the Bachelier Finance Society; 2014 conference of the International Federation of Operational Research Societies; 2014 European Actuarial Journal conference; 2014 European Meeting of the Econometric Society
- **Belief Heterogeneity in the Arrow-Borch-Raviv Insurance Model, and Some Extensions**: Microeconomic Theory Seminar - University of British Columbia (Apr. 2012); 2012 Risk, Uncertainty and Decision Conference - Northwestern University; HEC Montréal - Dept. of Finance (Sept. 2012); Imperial College Business School - Finance Group (Dec. 2012); Risk Theory Society Annual Seminar (Apr. 2013); EGRIE 2013 Meeting (Sept. 2013); Cass Business School - Faculty of Actuarial Science & Insurance (Mar. 2014)
- **On a Class of Monotone Comparative Statics Problems under Heterogeneous Uncertainty, with an Application to Insurance**: Montréal Seminar of Actuarial & Financial Mathematics (Mar. 2012); Financial & Actuarial Mathematics Seminar - University of Michigan (Feb. 2012); Microeconomic Theory Seminar - University of Montréal (Nov. 2011)
- **Contracting for Innovation under Knightian Uncertainty**: Microeconomic Theory Seminar - University of Montréal (Oct. 2011)
- **Contracting under Heterogeneous Beliefs**: Graduate Student Research Conference - University of Waterloo (Apr. 2011)
- **Cooperative Game Theory: A Mathematical Introduction**: Graduate Student Seminar - University of Waterloo (Mar. 2010)
- **Free Will, Uncertainty and the Foundations of Utility – An Introduction to Decision Theory:** Graduate Student Seminar - University of Waterloo (Oct. 2009)
- **Static Portfolio Choice under Cumulative Prospect Theory:** IAREP/SABE 2009 conference - Halifax, NS (Jul. 2009); Graduate Student Research Conference - University of Waterloo (Apr. 2009)
- **The Omega Measure and its Generalization:** University of Waterloo (Nov. 2008)
- **Dual Duration and Liability-Matching Portfolios:** Investment Consulting Group - Hewitt Associates, Toronto (Mar. 2007)

Teaching Experience

- University of Waterloo, *Topics in Risk Sharing and (Re)Insurance* (Graduate), Spring 2021
- University of Waterloo, *Finance II* (Graduate), Winter 2021, Winter 2023, Winter 2024
- University of Waterloo, *Financial Mathematics III* (Graduate), Spring 2019, Spring 2020, Spring 2021

- University of Waterloo, *Topics in Robust Optimal (Re)Insurance Design* (Graduate), Winter 2019
- University of Waterloo, *Mathematics of Financial Markets* (Undergraduate), Winter 2018, Fall 2018, Winter 2020, Spring 2020, Winter 2023, Winter 2024
- University of Waterloo, *Economics* (Master's), Fall 2017
- Imperial College London, *Stochastic Calculus for Finance* (Master's), Autumn 2013 & Autumn 2014
- Imperial College London, *Stochastic Calculus* (Master's), Autumn 2013 & Autumn 2014
- Imperial College London, *Application of MATLAB for Finance* (Master's), September 2014
- Imperial College London, *Derivatives* (Master's), Summer 2014
- Imperial College London, *Quantitative Methods* (Master's), Autumn 2013
- Université de Montréal, *Mathématiques Financières* (Undergraduate), Summer 2012
- University of Waterloo, Teaching Assistant (TA) - *Theory of Probability I* (Ph.D.), Fall 2009 & Fall 2010
- University of Waterloo, TA - *Loss Models II* (Ph.D.), Summer 2009
- University of Waterloo, TA - *Corporate Finance II* (Master's), Winter 2008
- University of Waterloo, TA - *Mathematical Models in Finance* (Ph.D.), Winter 2008
- University of Michigan, Fall 2006: Directed a review and support class on Financial Mathematics for Exam FM of the Society of Actuaries
- University of Michigan, Winter 2006: Directed a review and support class on Probability and Statistics for Exam P of the Society of Actuaries

Student Supervision

- Shuangjian Zhang – Past Postdoctoral Fellow, University of Waterloo
- Corina Birghila – Past Postdoctoral Fellow, University of Waterloo
- Maria Andraos – Current PhD student, University of Waterloo
- Qinghua Ren – Current PhD student, University of Waterloo (*co-supervised with Prof. Ruodu Wang*)
- Hongda Hu – Current PhD student, University of Waterloo (*co-supervised with Prof. Alexander Schied*)
- Benxuan Shi – Current PhD student, University of Waterloo (*co-supervised with Prof. Bin Lin*)
- Michael Zhu – Current PhD student, University of Waterloo
- Vincent Racine – Current Master's student – Thesis option, University of Waterloo
- Ziwei Pan – Current Master's student – Thesis option, University of Waterloo
- Tim Hao – Current Master's student – Thesis option, University of Waterloo
- Zheyu Chen – Current Master's student – Thesis option, University of Waterloo
- Adam Gomes – Past PhD student, University of Waterloo (*part of the PhD advisory committee*)

- Jingyi Cao – Past PhD student, University of Waterloo
  (*part of the PhD advisory committee*)
- Yunran Wei – Past PhD student, University of Waterloo
  (*part of the PhD advisory committee*)
- Shon Czinner – *Portfolio Choice under RDEU, Yaari, and EUT*
  Master's Thesis, University of Waterloo
- Yu Chen – *Measuring Model Risk in Risk Analytics*
  Master's Thesis, University of Waterloo
- Shenglong Li – *Pareto-Optima under Rank-Dependent Utility*
  Master's Thesis, University of Waterloo
- Jiaye Su – *Portfolio Choice under Cumulative Prospective Theory*
  Master's Thesis, University of Waterloo
- Oma Coke – *Budget-Constrained Optimal Insurance with an Upper Limit on the Insurer's Exposure* – Master's Thesis, University of Waterloo
- Michael Zhu – *Cost-Efficient Contingent Claims with Choquet Pricing*
  Master's Thesis, University of Waterloo
- Yuanzheng Song – Undergraduate research student, University of Waterloo
- Harris Chen – *Computational Aspects of Optimal Transport*
  Undergraduate research project, University of Waterloo
- Michael Zhu – *Loss Aversion for Decision under Risk*
  Undergraduate research project, University of Waterloo
- Qisi Deng – Undergraduate research student, University of Waterloo
- Jessica Wang – Undergraduate research student, University of Waterloo
- Jesse Sun – Undergraduate research student, University of Waterloo
- Hao Han – *Pricing American Options by Least Squares Regression*
  Master's Thesis, Imperial College London
- Grigory Budanov – *Complex Adaptive Systems*
  Master's Thesis, Imperial College London
- Weiqiong Shi – *Counterparty Risk and Collateralization of Longevity Swap*
  Master's Thesis, Imperial College London
- Martina Skerlik – *Solvency II*
  Master's Thesis, Imperial College London
- Michael Tang – *Inflation Hedging Through Asset and Sector Rotation*
  Master's Thesis, Imperial College London
- Rebecca Stables – *Pensions as an Asset Class*
  Master's Thesis, Imperial College London

Editorial Activity

- **ASTIN Bulletin**: Member of the Editorial Board — As of Oct. 2023

Refereeing Activity

- **Journals:**
  - *Econometrica*, *Journal of Economic Theory*, *Economic Theory*, *Economic Theory Bulletin*, *B.E. Journal of Theoretical Economics*, *Journal of Economic Dynamics and Control*, *Journal of Mathematical Economics*, *Mathematical Social Sciences*, *Economics Bulletin*, *Decisions in Economics and Finance*, *Theory and Decision*
  - *Management Science*, *Mathematics of Operations Research*, *Operations Research*, *Operations Research Letters*, *Operational Research*, *Information Systems and Operational Research*
  - *Mathematical Finance*, *Finance and Stochastics*, *Mathematics and Financial Economics*, *Quantitative Finance*, *SIAM Journal on Financial Mathematics*, *European Journal of Finance*, *International Review of Economics and Finance*, *Review of Behavioral Finance*
  - *Insurance: Mathematics and Economics*, *ASTIN Bulletin*, *Scandinavian Actuarial Journal*, *North American Actuarial Journal*, *European Actuarial Journal*, *Journal of Risk and Insurance*, *Journal of Insurance Issues*, *The Geneva Risk and Insurance Review*
  - *Journal of Applied Probability*, *Applied Mathematics and Optimization*, *Journal of Computational and Applied Mathematics*
- **Books:** *Handbook of Insurance*, *Springer*
- **Agencies:** *Natural Sciences and Engineering Research Council of Canada (NSERC)*, *Swiss National Science Foundation*, *Society of Actuaries*

Other Service

- Co-organizer of a workshop on Networks, Games, and Risk Sharing at Université du Québec à Montréal (December 2023).
- Co-organizer of a session on Functional Analytic Tools for Financial Decision Making at the Winter Meeting of the Canadian Mathematical Society in Montréal (December 2023).
- Co-organizer of FADeRiS 2023, the first edition of a workshop on the foundations and applications of decentralized risk sharing, at KU Leuven (May 2023).
- Founder and Chair of the organizing committee for the Seminar Series in Actuarial Science and Financial Mathematics at the University of Waterloo (since January 2019).
- Co-organizer of WatSAF[1], the first edition of the Waterloo Conference in Statistics, Actuarial Science, and Finance (April 2019).
- Member of a steering committee for a Thematic Program on Interdisciplinary Quantitative Analysis and Modelling at the Fields Institute (2018-2019).
- Co-organizer of a Fields-CQAM Workshop on Frontier Areas in Financial Analytics (April-May 2019).

Industry Experience

- **The Great-West Life Assurance Company**, Toronto, Canada
  Director, Enterprise Risk Management - Risk Modeling (Oct. 2015 - Apr. 2017)
- **Hewitt Associates**, Toronto, Canada – Actuarial Analyst (Feb. 2007 - Dec. 2007)
- **Watson Wyatt Worldwide**, New York City, USA – Actuarial Analyst (Summer 2006)
- **Hewitt Associates**, Paris, France – Actuarial Analyst (Feb. 2005 - June 2005)