# Ričardas Zitikis, MSc, PhD

# Curriculum Vitae

For details, click on any item below

General information	2
Contact information	2
Education	2
Expertise: consulting, research, and teaching	2
Employment and affiliations	2
Academic employment history	2
Other academic affiliations	3
Non-academic affiliations and duties	3
Short-term (but not shorter than one month) visiting positions	3
Research publications         Refereed journal publications         [1988] [1989] [1990] [1991] [1993] [1994] [1995] [1996] [1997] [1998] [1999] [2001] [2002] [2003] [2004] [2005] [2006]         [2007] [2008] [2009] [2010] [2011] [2012] [2013] [2014] [2015] [2016] [2017] [2018] [2019] [2020] [2021] [2022] [2023]         [2024] [2025]         Publications in conference proceedings         Discussions, editorials, letters, briefs	4 4 14 15
Edited books  Funding Research grants Teaching grants Equipment grants	16 16 16 19 19
Research presentations	19
Conferences, workshops, seminars	19
Service to profession Funding reviewer Reviewer of academic matters Past editorial work Ongoing editorial work Conference/competition organizer, chair, judge, discussant	22 22 23 23 23 23 24
Teaching: individual supervision	25
High school students	25
Undergraduate students	26
Master's students	27
Doctoral students	30
Post-doctoral fellows	31
Research associates	32
Interns at companies	32
Teaching: courses	33
Undergraduate courses	33
Graduate courses	34
Thesis examination committees	35
Master's (science, arts) theses	35
Ph.D. mid-study proposals	35
Ph.D. theses	36
Administrative duties	39
Department committees	39
Sub-faculty committees	40
Faculty committees	40
University committees	40
Corporate committees	41

# Ričardas Zitikis, MSc, PhD

Canadian Citizen<sup>1</sup>

# **General information**

#### **CONTACT INFORMATION**

Address: School of Mathematical and Statistical Sciences Western University 231 Western Science Centre 1151 Richmond Street North London, Ontario N6A 5B7 Canada E-mails: rzitikis@uwo.ca

# EDUCATION

1985 M.Sc.

- Awarded: 25 June 1985 by Vilnius University, Lithuania
- Specialty: Applied Mathematics

zitikis@stats.uwo.ca

- Awarded qualification: Mathematician
- Thesis: Non-expanding Operators in Banach Spaces
- Defence location: Faculty of Mathematics, Vilnius University, Lithuania
- Supervisor: Vygantas Paulauskas

1988 Ph.D.

- Awarded: 13 December 1988 by Vilnius University, Lithuania
- Specialty: Physical and Mathematical Sciences
- Thesis: Asymptotic Expansions in the Local Limit Theorem for Cramér-von Mises-Smirnov Statistics
- Defence location: Faculty of Mathematics, Vilnius University, Lithuania
- Supervisors: Vidmantas Bentkus and Vygantas Paulauskas

# EXPERTISE: CONSULTING, RESEARCH, AND TEACHING

Some of my non-confidential research has been published in more than 150 peer-reviewed articles *General* 

Decision making under risk and uncertainty

A specimen of specific areas

	$M_{1,2}$
Business analytics and decisions	Mathematics, probability, statistics
Insurance (risk measures, premiums)	Random/stochastic processes and cash flows
Econometrics (economic inequality, time series)	Reliability engineering
Economics (behavioural theory, utility, preferences)	Risk analysis
Finance (behavioural theory, portfolio theory)	Theoretical biology (lifetime phases)

# **Employment and affiliations**

# ACADEMIC EMPLOYMENT HISTORY

1985 – 1988 Junior Research Fellow Department of Mathematical Statistics, Institute of Mathematics and Informatics (IMI), Lithuanian Academy of Sciences, Vilnius, Lithuania.

- 1988 1990 Research Fellow Department of Probability Theory, Institute of Mathematics and Informatics (IMI), Lithuanian Academy of Sciences, Vilnius, Lithuania.
- 1990 2000 Senior Research Fellow Department of Probability Theory, Institute of Mathematics and Informatics (IMI), Lithuanian Academy of Sciences, Vilnius, Lithuania.
- 1994 1996 Canada International Fellow Laboratory for Research in Statistics and Probability, Carleton University, Ottawa, Ontario, Canada.
- 1996 1999 Research Associate Laboratory for Research in Statistics and Probability, Carleton University, Ottawa, Ontario, Canada.

<sup>&</sup>lt;sup>1</sup>Prior to becoming a citizen of Canada, I had Lithuanian citizenship, which I automatically lost when I became Canadian in August 2000, in Winnipeg, Manitoba.

- 1999 2001 Assistant Professor Department of Statistics, University of Manitoba, Winnipeg, Manitoba, Canada.
- 2001 (July–August) Associate Professor Department of Statistics, University of Manitoba, Winnipeg, Manitoba, Canada.
- 2001 [ongoing] Associate Professor Department of Statistical and Actuarial Sciences, Western University, London, Ontario, Canada.

# OTHER ACADEMIC AFFILIATIONS

- 1999 [ongoing] External Research Member Laboratory for Research in Statistics and Probability, Ottawa, Ontario, Canada.
- 2004 2006 Adjunct Member of the Graduate Faculty College of Engineering and Science, Louisiana Tech University, Ruston, Louisiana, U.S.A.
- 2007 International Member Statistical Engineering Research Group, Institute of Information Sciences and Technology, Massey University, Palmerston North, New Zealand.
- 2017 2021<sup>2</sup> Associate Professor Department of Applied Mathematics, Western University, London, Ontario, Canada.
- 2017 2025 Programme Committee and Teaching Board Member PhD in Economics, Statistics and Data Science, Department of Economics, Management and Statistics, University of Milano-Bicocca, Milan, Lombardy, Italy.
- 2020 2023<sup>3</sup> Principal Scholar Risk and Insurance Studies Centre (RISC), York University, Toronto, Ontario, Canada.
- 2021 2024 Adjunct Professor (with graduate supervision rights) Department of Mathematics and Statistics, Faculty of Science, York University, Toronto, Ontario, Canada.
- 2023 [ongoing] Principal Scholar RISC Foundation (incorporated under the Canada Not-for-profit Corporations Act).

NON-ACADEMIC AFFILIATIONS AND DUTIES

# For closely related work, see Interns at Companies

- 2011 2013 Vice-President (Strategic Development and Analytics) Global Property Directory System (GPDS). Legal title: 7812345 Canada Inc.
- 2012 2014 Member of the Board of Directors Middlesex Condominium Corporation No. 369, London, Ontario, Canada.
- 2013 2018 Chief Risk Officer (CRO) PC275 Realty (Pritchard & Crook Real Estate Brokerage Inc.), London, Ontario, Canada.
- 2014 Member of a Jury Panel Sheriff's Office, Superior Court of Justice, London, Ontario, Canada.
- 2014 2017 Member of the Board of Directors Middlesex Condominium Corporation No. 369, London, Ontario, Canada.
- 2017 Member of a Jury Panel Sheriff's Office, Superior Court of Justice, London, Ontario, Canada.

# SHORT-TERM (BUT NOT SHORTER THAN ONE MONTH) VISITING POSITIONS

Supported by host institutions via various awards, funds and grants, which I gratefully acknowledge

1992 – 1993 Researcher

Centre for Research in "Discrete Structures in Mathematics" (SFB 343), University of Bielefeld, Bielefeld, Germany.

- 1994 (1 month) Researcher Centre for Mathematics and Computer Science (CWI), Amsterdam, Netherlands.
- 1997 (1 month) Researcher Centre for Mathematics and Computer Science (CWI), Amsterdam, Netherlands.

<sup>&</sup>lt;sup>2</sup>Department of Applied Mathematics at Western University was dissolved in 2021.

<sup>&</sup>lt;sup>3</sup>Risk and Insurance Studies Centre (RISC) ceased to exist in 2023 as an organized research unit at York University and became RISC Foundation incorporated under the Canada Not-for-profit Corporations Act.

- 1999 (1 month) Researcher Centre for Mathematics and Computer Science (CWI), Amsterdam, Netherlands.
- 2001 (January–February) Researcher Centre for Mathematics and Computer Science (CWI), Amsterdam, Netherlands.
  - (June) Professor Applied Mathematics Laboratory, University of Science and Technology of Lille, Villeneuve d'Ascq, France.
- 2002 (June–July) Guest Lecturer Bandung Institute of Technology (ITB), Bandung, Indonesia. (Under the auspices of the bi-national scientific cooperation program between Indonesia and the Netherlands.)
- 2003 (May–June) Professor Paul Painlevé Laboratory, University of Science and Technology of Lille, Villeneuve d'Ascq, France.
- 2004 (May) Research Fellow Department of Mathematics, School of Science and Technology, University Sussex, Falmer, U.K.
  - (May–July) Researcher Centre for Mathematics and Computer Science (CWI), Amsterdam, Netherlands.
  - (July–September) Academic and Honorary Teaching Fellow Institute of Information Sciences and Technology, Massey University, Palmerston North, New Zealand.
- 2005 (May–June) Professor Paul Painlevé Laboratory, University of Science and Technology of Lille, Villeneuve d'Ascq, France.
- 2006 (March–April) Researcher Centre for Mathematics and Computer Science (CWI), Amsterdam, Netherlands.
  - (October–November) Researcher (International Visitor Research Fund Award). Institute of Information Sciences and Technology, Massey University, Palmerston North, New Zealand.
- 2007 (April–May) Researcher Actuarial Research Center (ARC), University of Haifa, Haifa, Israel.
  - (June) Researcher Paul Painlevé Laboratory, University of Science and Technology of Lille, Villeneuve d'Ascq, France. (Under the auspices of the France–Canada Cooperation Program, Scientific Services, French Embassy, Ottawa, Canada.)
- 2010 (June–July) Researcher Institute of Fundamental Sciences–Statistics, Massey University, Palmerston North, New Zealand. (Supported by the Actuarial Foundation (TAF) of the Society of Actuaries (SOA), Schaumburg, Illinois, U.S.A.)

# **Research publications**

# **R**EFEREED JOURNAL PUBLICATIONS

# $\begin{bmatrix} 1988 \\ [1989] \\ [1990] \\ [1990] \\ [1991] \\ [1993] \\ [1994] \\ [1995] \\ [1995] \\ [1996] \\ [1997] \\ [1998] \\ [1998] \\ [1999] \\ [2001] \\ [2002] \\ [2003] \\ [2013] \\ [2013] \\ [2014] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\ [2025] \\$

# 1988

- Remark on the Cramér-von Mises-Smirnov test. Bentkus, V. and Zitikis, R. (1988). *Litovskii Matematicheskii Sbornik*, 28 (1), 14–22; translated in: *Lithuanian Mathematical Journal*, 28 (1), 8–13.
- (2) Asymptotic expansions in a local limit theorem for  $\omega_n^2$  statistics. Zitikis, R. (1988). *Litovskii Matematicheskii Sbornik*, 28 (3), 461–474.

 (3) Asymptotic expansions for derivatives of the distribution function of the Anderson–Darling statistic. Zitikis, R. (1989). *Litovskii Matematicheskii Sbornik*, 29 (1), 35–53.

1990

<sup>1989</sup> 

 <sup>(4)</sup> Smoothness of distribution function of FL-statistic. I Zitikis, R. (1990). Litovskii Matematicheskii Sbornik, 30 (2), 233–246; translated in: Lithuanian Mathematical Journal, 30 (2), 97–106.

(5)	Smoothness of distribution function of <i>FL</i> -statistic. II Zitikis, R. (1990). <i>Litovskii Matematicheskii Sbornik</i> , 30 (3), 500–512; translated in: <i>Lithuanian Mathematical Journal</i> , 30 (3),
	231–240.
(6)	Probabilities of large deviations for <i>L</i> -statistics. Bentkus, V. and Zitikis, R. (1990). <i>Litovskii Matematicheskii Sbornik</i> , 30 (3), 479–488; translated in: <i>Lithuanian Mathematical Journal</i> , 30 (3), 215–222
(7)	Uniform limit theorem for densities of <i>L</i> -statistics. Zitikis R (1990)
	Litovskii Matematicheskii Sbornik, 30 (4), 728–740; translated in: Lithuanian Mathematical Journal, 30 (4), 331–341.
1991	
(8)	Cramér type large deviations for a class of statistics. Zitikis, R. (1991).
	Litovskii Matematicheskii Sbornik, 31 (2), 302–310; translated in: Lithuanian Mathematical Journal, 31 (2), 204–210.
(9)	Asymptotic behaviour of linear combinations of functions of order statistics. Norvaiša, R. and Zitikis, R. (1991). <i>Journal of Statistical Planning and Inference</i> , 28 (3), 305–317.
1003	
(10)	Asymptotic expansions in the integral and local limit theorems in Banach spaces with applications to $\omega$ -statistics. Bentkus, V., Götze, F. and Zitikis, R. (1993).
	<i>Journal of Theoretical Probability</i> , 6 (4), 727–780.
1994	
(11)	Lower estimates of the convergence rate for <i>U</i> -statistics. Bentkus, V., Götze, F. and Zitikis, R. (1994). Annals of Probability 22 (4) 1707–1714
1005	
1995	
(12)	Edgeworth expansions and bootstrap for degenerate von Mises statistics. Götze, F. and Zitikis, R. (1995). <i>Probability and Mathematical Statistics</i> , 15 (Jerzy Neyman's Volume), 327–351.
1996	
(13)	Strassen's LU for the Lorenz curve
(13)	Csörgő, M. and Zitikis, R. (1996). Journal of Multivariate Analysis, 59 (1), 1–12.
(14)	Mean residual life processes. Csörgő, M. and Zitikis, R. (1996). <i>Annals of Statistics</i> , 24 (4), 1717–1739.
1007	
(15)	On the rate of strong consistency of Lorenz curries
(15)	Csörgő, M. and Zitikis, R. (1997). Statistics and Probability Letters, 34 (2), 113–121.
(16)	
	On confidence bands for the Lorenz and Goldie curves.
	On confidence bands for the Lorenz and Goldie curves. Csörgő, M. and Zitikis, R. (1997).
	On confidence bands for the Lorenz and Goldie curves. Csörgő, M. and Zitikis, R. (1997). In: Advances in the Theory and Practice of Statistics – A Volume in Honor of Samuel Kotz (Eds.: N.L. Johnson
	On confidence bands for the Lorenz and Goldie curves. Csörgő, M. and Zitikis, R. (1997). In: <i>Advances in the Theory and Practice of Statistics – A Volume in Honor of Samuel Kotz</i> (Eds.: N.L. Johnson and N. Balakrishnan), 261–281. Wiley, New York.
1998	On confidence bands for the Lorenz and Goldie curves. Csörgő, M. and Zitikis, R. (1997). In: Advances in the Theory and Practice of Statistics – A Volume in Honor of Samuel Kotz (Eds.: N.L. Johnson and N. Balakrishnan), 261–281. Wiley, New York.
<b>1998</b> (17)	On confidence bands for the Lorenz and Goldie curves. Csörgő, M. and Zitikis, R. (1997). In: Advances in the Theory and Practice of Statistics – A Volume in Honor of Samuel Kotz (Eds.: N.L. Johnson and N. Balakrishnan), 261–281. Wiley, New York.
<b>1998</b> (17)	On confidence bands for the Lorenz and Goldie curves. Csörgő, M. and Zitikis, R. (1997). In: Advances in the Theory and Practice of Statistics – A Volume in Honor of Samuel Kotz (Eds.: N.L. Johnson and N. Balakrishnan), 261–281. Wiley, New York. On the rate of strong consistency of total time on test statistic. Csörgő, M. and Zitikis, R. (1998). Journal of Multivariate Analysis, 66 (1), 99–117.
<b>1998</b> (17) (18)	On confidence bands for the Lorenz and Goldie curves. Csörgő, M. and Zitikis, R. (1997). In: Advances in the Theory and Practice of Statistics – A Volume in Honor of Samuel Kotz (Eds.: N.L. Johnson and N. Balakrishnan), 261–281. Wiley, New York. On the rate of strong consistency of total time on test statistic. Csörgő, M. and Zitikis, R. (1998). Journal of Multivariate Analysis, 66 (1), 99–117. Asymptotic confidence bands for the Lorenz and Bonferroni curves based on the empirical Lorenz curve
<b>1998</b> (17) (18)	On confidence bands for the Lorenz and Goldie curves. Csörgő, M. and Zitikis, R. (1997). In: Advances in the Theory and Practice of Statistics – A Volume in Honor of Samuel Kotz (Eds.: N.L. Johnson and N. Balakrishnan), 261–281. Wiley, New York. On the rate of strong consistency of total time on test statistic. Csörgő, M. and Zitikis, R. (1998). Journal of Multivariate Analysis, 66 (1), 99–117. Asymptotic confidence bands for the Lorenz and Bonferroni curves based on the empirical Lorenz curve. Csörgő, M., Gastwirth, J.L. and Zitikis, R. (1998). Journal of Statistical Planning and Inference, 74 (1), 65–91.
<b>1998</b> (17) (18) <b>1999</b>	<ul> <li>On confidence bands for the Lorenz and Goldie curves.</li> <li>Csörgő, M. and Zitikis, R. (1997).</li> <li>In: Advances in the Theory and Practice of Statistics – A Volume in Honor of Samuel Kotz (Eds.: N.L. Johnson and N. Balakrishnan), 261–281. Wiley, New York.</li> <li>On the rate of strong consistency of total time on test statistic.</li> <li>Csörgő, M. and Zitikis, R. (1998).</li> <li>Journal of Multivariate Analysis, 66 (1), 99–117.</li> <li>Asymptotic confidence bands for the Lorenz and Bonferroni curves based on the empirical Lorenz curve.</li> <li>Csörgő, M., Gastwirth, J.L. and Zitikis, R. (1998).</li> <li>Journal of Statistical Planning and Inference, 74 (1), 65–91.</li> </ul>

Csörgő, M. and Zitikis, R. (1999). *Acta Applicandae Mathematicae* (Special issue on Limit Theorems of Probability Theory in Honour of Vytautas Statulevičius), 58 (1–3), 91–105.

- (20) On estimation of Poisson intensity functions. Helmers, R. and Zitikis, R. (1999). Annals of the Institute of Statistical Mathematics, 51 (2), 265–280. 2001 . (21) The Vervaat process in  $L_p$ -spaces. Csörgő, M. and Zitikis, R. (2001). Journal of Multivariate Analysis, 78 (1), 103–138. 2002 . (22) Asymptotic distribution of the S-Gini index. Zitikis, R. and Gastwirth, J.L. (2002). Australian & New Zealand Journal of Statistics, 44 (4), 439–446. (23) Pointwise and uniform asymptotics of the Vervaat error process. Csáki, E., Csörgő, M., Földes, A., Shi, Z. and Zitikis, R. (2002). Journal of Theoretical Probability, 15 (4), 845–875. (24) Convergence of generalized Lorenz curves based on stationary ergodic random sequences with deterministic noise. Davydov, Y. and Zitikis, R. (2002). Statistics and Probability Letters, 59 (4), 329–340. (25) Large sample estimation of a family of economic inequality indices. Zitikis, R. (2002). Pakistan Journal of Statistics, 18 (2; Special issue in honour of Dr. S. Ejaz Ahmad), 225–248. (26) On the general Bahadur-Kiefer, quantile, and Vervaat processes: old and new. Csörgő, M. and Zitikis, R. (2002). In: Limit Theorems in Probability and Statistics, Vol. I (Eds.: I. Berkes, E. Csáki, M. Csörgő), 389-426. János Bolyai Mathematical Society, Budapest. 2003 \_ (27) Asymptotics of the  $L_p$ -norms of density estimators in the first order autoregressive models. Horváth, L. and Zitikis, R. (2003). Statistics and Probability Letters, 65 (4), 331–342. (28) Empirical estimation of risk measures and related quantities. Jones, B.L. and Zitikis, R. (2003). North American Actuarial Journal, 7 (4), 44–54. Discussion by V. Brazauskas and T. Kaiser in North American Actuarial Journal, 8 (3; 2004) 114–117. Authors' Reply in North American Actuarial Journal, 8 (3; 2004) 117-118. (29) Generalized Lorenz curves and convexifications of stochastic processes. Davydov, Y. and Zitikis, R. (2003). Journal of Applied Probability, 40 (4), 906–925. (30) Asymptotic estimation of the *E*-Gini index. Zitikis, R. (2003). Econometric Theory, 19 (4), 587-601. (31) Consistent estimation of the intensity function of a cyclic Poisson process. Helmers, R., Mangku, I.W. and Zitikis, R. (2003). Journal of Multivariate Analysis, 84 (1), 19–39. 2004 (32) A robust heuristic estimator for the period of a Poisson intensity function. Bebbington, M. and Zitikis, R. (2004). Methodology and Computing in Applied Probability, 6 (4), 441–462. (33) Asymptotics of the  $L_p$ -norms of density estimators in the first order autoregressive models. Horváth, L. and Zitikis, R. (2004). Statistics and Probability Letters, 66 (2), 91–103. (34) The influence of deterministic noise on empirical measures generated by stationary processes. Davydov, Y. and Zitikis, R. (2004). Proceedings of the American Mathematical Society, 132 (4), 1203–1210. (35) Convex rearrangements of random elements. Davydov, Y. and Zitikis, R. (2004). In: Asymptotic Methods in Stochastics, Festschrift for Miklós Csörgő (Eds.: L. Horváth and B. Szyszkowicz), Fields Institute Communications, Vol. 44, 141–171. American Mathematical Society, Providence, Rhode Island.
- 2005 \_

- (36) An index of monotonicity and its estimation: a step beyond econometric applications of the Gini index. Davydov, Y. and Zitikis, R. (2005). *Metron – International Journal of Statistics*, 63 (3; Special issue in Memory of Corrado Gini), 351–372.
- (37) Estimating the turning points of failure rate and mean residual life functions. Bebbington, M., Lai, C.D. and Zitikis, R. (2005). *Communications in Dependability and Quality Management*, 8, 11–15.
- (38) Testing for the order of risk measures: an application of *L*-statistics in actuarial science. Jones, B.L. and Zitikis, R. (2005). *Metron – International Journal of Statistics*, 63 (2), 193–211.
- (39) Strong laws for generalized absolute Lorenz curves when data are stationary and ergodic sequences. Helmers, R. and Zitikis, R. (2005). *Proceedings of the American Mathematical Society*, 133 (12), 3703–3712.
- (40) Statistical properties of a kernel-type estimator of the intensity function of a cyclic Poisson process. Helmers, R., Mangku, I.W. and Zitikis, R. (2005). *Journal of Multivariate Analysis*, 92 (1), 1–23.
- 2006
- (41) Gini indices as areas and covariances: what is the difference between the two representations? Schechtman, E. and Zitikis, R. (2006). *Metron – International Journal of Statistics*, 54, 385–397.
- (42) Sample and implied volatility in GARCH models. Horváth, L., Kokoszka, P. and Zitikis, R. (2006). *Journal of Financial Econometrics*, 4, 617–635.
- (43) Testing for stochastic dominance using the weighted McFadden-type statistic. Horváth, L., Kokoszka, P. and Zitikis, R. (2006). *Journal of Econometrics*, 133 (1), 191–205.
- (44) Useful periods for lifetime distributions with bathtub shaped hazard rate functions. Bebbington, M., Lai, C.D. and Zitikis, R. (2006). *IEEE Transactions on Reliability*, 55 (2), 245–251.
- (45) Testing goodness of fit based on densities of GARCH innovations. Horváth, L. and Zitikis, R. (2006). *Econometric Theory*, 22 (3), 457–482.
- (46) Testing hypotheses about the equality of several risk measure values with applications in insurance. Jones, B.L., Puri, M.L. and Zitikis, R. (2006). *Insurance: Mathematics and Economics*, 38 (2), 253–270.
- 2007
- (47) Estimating the renewal function when the second moment is infinite. Bebbington, M., Davydov, Y. and Zitikis, R. (2007). *Stochastic Models*, 23 (1), 27–48.
- (48) Optimum burn-in time for a bathtub shaped failure distribution. Bebbington, M., Lai, C.D. and Zitikis, R. (2007). *Methodology and Computing in Applied Probability*, 9 (1), 1–20.
- (49) Modeling human mortality using mixtures of bathtub shaped failure distributions. Bebbington, M., Lai, C.D. and Zitikis, R. (2007). *Journal of Theoretical Biology*, 245 (3), 528–538. Addendum in *Journal of Theoretical Biology*, 249 (2), 409–410.
- (50) Deterministic noises that can be statistically distinguished from the random ones. Davydov, Y. and Zitikis, R. (2007). Statistical Inference for Stochastic Processes, 10 (2), 165–179.
- (51) A flexible Weibull extension.
  Bebbington, M., Lai, C.D. and Zitikis, R. (2007).
  Reliability Engineering & System Safety, 92 (6), 719–726. Letter to the editor by S. Nadarajah in Reliability Engineering & System Safety, 92 (10), 1484. Reply to S. Nadarajah in Reliability Engineering & System Safety, 92 (10), 1485.
- (52) Convex rearrangements, generalized Lorenz curves, and correlated Gaussian data. Davydov, Y., Khoshnevisan, D., Shi, Z. and Zitikis, R. (2007). *Journal of Statistical Planning and Inference* (Special issue on "Nonparametric Statistics and Related Topics: In Honor of M.L. Puri" edited by S. Ralescu, G. Haiman, and F. Ruymgaart), 137 (3), 915–934.

- (53) Risk measures, distortion parameters, and their empirical estimation. Jones, B.L. and Zitikis, R. (2007). *Insurance: Mathematics and Economics*, 41 (2), 279–297.
- (54) Bathtub-type curves in reliability and beyond.
  Bebbington, M., Lai, C.D. and Zitikis, R. (2007).
  Australian & New Zealand Journal of Statistics, 49 (3), 251–265.
- (55) A non-parametric estimator for the doubly periodic Poisson intensity function. Helmers, R., Mangku, I.W. and Zitikis, R. (2007). *Statistical Methodology*, 4 (4), 481–492.
- (56) Reliability of modules with load-sharing components. Bebbington, M., Lai, C.D. and Zitikis, R. (2007). *Journal of Applied Mathematics and Decision Sciences* (Special issue on "Statistics and Applied Probability: A Tribute to Jeffrey J. Hunter" and edited by Graeme Charles Wake and Paul Cowpertwait), 2007 (Article ID 43565), 1–18.
- (57) Nested *L*-statistics and their use in comparing the riskiness of portfolios. Brazauskas, V., Jones, B.L., Puri, M.L. and Zitikis, R. (2007). *Scandinavian Actuarial Journal*, 2007 (3), 162–179.
- (58) Robustification and performance evaluation of empirical risk measures and other vector-valued estimators. Brazauskas, V., Jones, B.L. and Zitikis, R. (2007). *Metron – International Journal of Statistics*, 65 (2), 175–199.

- (59) Reduction in mean residual life in the presence of a constant competing risk. Bebbington, M., Lai, C.D. and Zitikis, R. (2008). *Applied Stochastic Models in Business and Industry*, 24 (1), 51–63.
- (60) Weighted premium calculation principles. Furman, E. and Zitikis, R. (2008). Insurance: Mathematics and Economics, 42 (1), 459–465.
- (61) Estimating the turning point of a bathtub-shaped failure distribution. Bebbington, M., Lai, C.D. and Zitikis, R. (2008). *Journal of Statistical Planning and Inference*, 138 (4), 1157–1166.
- (62) Lifetime analysis of incandescent lamps: the Menon-Agrawal model revisited. Bebbington, M., Lai, C.D. and Zitikis, R. (2008). *Risk Analysis: Theory and Applications*, 1 (1), 97–108.
- (63) On weak convergence of random fields. Davydov, Y. and Zitikis, R. (2008). Annals of the Institute of Statistical Mathematics, 60 (2), 345–365.
- (64) A proof of the shape of the Birnbaum-Saunders hazard rate function. Bebbington, M., Lai, C.D. and Zitikis, R. (2008). *The Mathematical Scientist*, 33 (1), 49–56.
- (65) Monotonicity of ratios involving incomplete gamma functions with actuarial applications. Furman, E. and Zitikis, R. (2008). *Journal of Inequalities in Pure and Applied Mathematics*, 9 (3), Article 61, 6 pp.
- (66) Testing hypotheses about absolute concentration curves and marginal conditional stochastic dominance. Schechtman, E., Shelef, A., Yitzhaki, S. and Zitikis, R. (2008). *Econometric Theory*, 24 (4), 1044–1062.
- (67) The Atkinson index, the Moran statistic, and testing exponentiality. Mimoto, N. and Zitikis, R. (2008). *Journal of the Japan Statistical Society*, 38 (2), 187–205.
- (68) Distributional analysis of empirical volatility in GARCH processes. Horváth, L., Kokoszka, P. and Zitikis, R. (2008). *Journal of Statistical Planning and Inference* (Special issue in honor of Junjiro Ogawa (1915–2000) on "Design of Experiments, Multivariate Analysis and Statistical Inference"), 138 (11), 3578–3589.
- (69) Estimating conditional tail expectation with actuarial applications in view. Brazauskas, V., Jones, B.L., Puri, M.L. and Zitikis, R. (2008). *Journal of Statistical Planning and Inference* (Special issue in honor of Junjiro Ogawa (1915–2000) on "Design of Experiments, Multivariate Analysis and Statistical Inference"), 138 (11), 3590–3604.

- (70) A monotonicity property of the composition of regularized and inverted-regularized gamma functions with applications.
   Furman, E. and Zitikis, R. (2008).
   Journal of Mathematical Analysis and Applications, 348 (2), 971–976.
- (71) Weighted risk capital allocations. Furman, E. and Zitikis, R. (2008). *Insurance: Mathematics and Economics*, 43 (2), 263–269.

- (72) Modeling lactation curves: classical parametric models re-examined and modified. Bebbington, M., Lai, C.D. and Zitikis, R. (2009). *Journal of Applied Statistics*, 36 (2), 121–133.
- (73) Grüss's inequality, its probabilistic interpretation, and a sharper bound. Zitikis, R. (2009). Journal of Mathematical Inequalities, 3 (1), 15–20.
- (74) Modelling N- and W-shaped hazard rate functions without mixing distributions.
   Bebbington, M., Lai, C.D., Murthy, D.N.P. and Zitikis, R. (2009).
   Proceedings of the Institution of Mechanical Engineers, Part O: Journal of Risk and Reliability, 223 (1), 59–69.
- (75) Robust fitting of claim severity distributions and the method of trimmed moments. Brazauskas, V., Jones, B.L. and Zitikis, R. (2009). *Journal of Statistical Planning and Inference*, 139 (6), 2028–2043.
- (76) Confidence regions for the intensity function of a cyclic Poisson process. Helmers, R., Wang, Q. and Zitikis, R. (2009). Statistical Inference for Stochastic Processes, 12 (1), 21–36.
- (77) Identifying health inequalities between Māori and non-Māori using mortality tables. Bebbington, M., Goddard, M., Lai, C.D. and Zitikis, R. (2009). Kōtuitui: New Zealand Journal of Social Sciences Online, 4 (2), 103–114.
- (78) Balancing burn-in and mission times in environments with catastrophic and repairable failures. Bebbington, M., Lai, C.D. and Zitikis, R. (2009). *Reliability Engineering & System Safety*, 94 (8), 1314–1321.
- (79) *L*-functions, processes, and statistics in measuring economic inequality and actuarial risks. Greselin, F., Puri, M.L. and Zitikis, R. (2009). *Statistics and Its Interface* (Festschrift for Professor Joseph L. Gastwirth), 2 (2), 227–245.
- (80) When inflation causes no increase in claim amounts. Brazauskas, V., Jones, B.L. and Zitikis, R. (2009). *Journal of Probability and Statistics*, 2009, Article ID 943926, 10 pages.
- (81) Dynamics and phases of kiwifruit (Actinidia deliciosa) growth curves. Bebbington, M., Hall, A.J., Lai, C.D. and Zitikis, R. (2009). New Zealand Journal of Crop and Horticultural Science, 37 (3), 179–188.
- (82) Weighted pricing functionals with applications to insurance: an overview. Furman, E. and Zitikis, R. (2009). North American Actuarial Journal, 13 (4), 483–496.
- (83) Czekanowski's index of overlap, its L<sub>p</sub>-type extension, and bias reduction. Mimoto, N. and Zitikis, R. (2009). *American Journal of Mathematical and Management Sciences* (Special Volume on "Ranking and Selection and Multiple Comparison Procedures"), 29 (1–2), 229–261.

- (84) Rational polynomial hazard functions.
   Bebbington, M., Lai, C.D., Murthy, D.N.P. and Zitikis, R. (2010).
   International Journal of Performability Engineering, 6 (1), 35–52.
- (85) Grüss-type bounds for the covariance of transformed random variables. Egozcue, M., Fuentes García, L., Wong, W.K. and Zitikis, R. (2010). *Journal of Inequalities and Applications*, 2010, Article ID 619423, 10 pages.
- (86) Estimating the conditional tail expectation in the case of heavy-tailed losses. Necir, A., Rassoul, A. and Zitikis, R. (2010). *Journal of Probability and Statistics* (Special issue on "Actuarial and Financial Risks: Models, Statistical Inference, and Case Studies"), 2010, Article ID 596839, 1–17.

<sup>2009</sup> 

<sup>2010 -</sup>

- (87) Zenga's new index of economic inequality, its estimation, and an analysis of incomes in Italy. Greselin, F., Pasquazzi, L. and Zitikis, R. (2010). *Journal of Probability and Statistics* (Special issue on "Actuarial and Financial Risks: Models, Statistical Inference, and Case Studies"), 2010, Article ID 718905, 1–26.
- (88) General Stein-type covariance decompositions with applications to insurance and finance. Furman, E. and Zitikis, R. (2010). *ASTIN Bulletin: the Journal of the International Actuarial Association*, 40 (1), 369–375.
- (89) Life expectancy of a bathtub shaped failure distribution. Bebbington, M., Lai, C.D. and Zitikis, R. (2010). *Statistical Papers*, 51 (3), 599–612.
- (90) Prospect theory, indifference curves, and hedging risks. Broll, U., Egozcue, M., Wong, W.K. and Zitikis, R. (2010). Applied Mathematics Research Express, 2010 (2), 142–153.

#### 2011 .

- (91) Log-supermodularity of weight functions, ordering weighted losses, and the loading monotonicity of weighted premiums.
   Sendov, H.S., Wang, Y. and Zitikis, R. (2011).
   Insurance: Mathematics and Economics, 48 (2), 257–264.
- (92) Modelling deceleration in senescent mortality. Bebbington, M., Lai, C.D. and Zitikis, R. (2011). *Mathematical Population Studies*, 18 (1), 18–37.
- (93) Estimating the distortion parameter of the proportional-hazard premium for heavy-tailed losses. Brahimi, B., Meraghni, D., Necir, A. and Zitikis, R. (2011). *Insurance: Mathematics and Economics*, 49 (3), 325–334.
- (94) Do investors like to diversify? A study of Markowitz preferences. Egozcue, M., Fuentes García, L., Wong, W.K. and Zitikis, R. (2011). *European Journal of Operational Research*, 215 (1), 188–193.
- (95) The covariance sign of transformed random variables with applications to economics and finance. Egozcue, M., Fuentes García, L., Wong, W.K. and Zitikis, R. (2011). *IMA Journal of Management Mathematics*, 22 (3), 291–300.
- (96) Grüss-type bounds for covariances and the notion of quadrant dependence in expectation. Egozcue, M., Fuentes García, L., Wong, W.K. and Zitikis, R. (2011). Open Mathematics (formerly Central European Journal of Mathematics), 9 (6), 1288–1297.

#### 2012

- (97) The discrete additive Weibull distribution: A bathtub-shaped hazard for discontinuous failure data. Bebbington, M., Lai, C.D., Wellington, M. and Zitikis, R. (2012). *Reliability Engineering and System Safety*, 106 (October), 37–44.
- (98) Prospect performance evaluation: making a case for a non-asymptotic UMPU test. Bai, Z., Hui, Y., Wong, W.K. and Zitikis, R. (2012). *Journal of Financial Econometrics*, 10 (4), 703–732.
- (99) The order-statistic claim process with dependent claim frequencies and severities. Sendova, K.P. and Zitikis, R. (2012). *Journal of Statistical Theory and Practice*, 6 (4), 597–620.
- (100) The smallest upper bound for the p<sup>th</sup> absolute central moment of a class of random variables. Egozcue, M., Fuentes García, L., Wong, W.K. and Zitikis, R. (2012). *The Mathematical Scientist*, 37 (2), 125–131.
- 2013 \_
- (101) Convex combinations of quadrant dependent copulas. Egozcue, M., Fuentes García, L., Wong, W.K. and Zitikis, R. (2013). *Applied Mathematics Letters*, 26 (2), 249–251.
- (102) Contrasting the Gini and Zenga indices of economic inequality. Greselin, F., Pasquazzi, L. and Zitikis, R. (2013). *Journal of Applied Statistics*, 40 (2), 282–297.
- (103) Examining the distributional effects of military service on earnings: a test of initial dominance. Bennett, C.J. and Zitikis, R. (2013). Journal of Business & Economic Statistics, 31 (1), 1–15.

- (104) An optimal strategy for maximizing the expected real-estate selling price: accept or reject an offer? Egozcue, M., Fuentes García, L. and Zitikis, R. (2013). *Journal of Statistical Theory and Practice*, 7 (3), 596–609.
- (105) Evaluating risk measures and capital allocations based on multi-losses driven by a heavy-tailed background risk: the multivariate Pareto-II model. Asimit, A.V., Vernic, R. and Zitikis, R. (2013). *Risks*, 1 (1), 14–33.
- 2014 -
- (106) Integration-segregation decisions under general value functions: "Create your own bundle choose 1, 2 or all 3!" Egozcue, M., Massoni, S., Wong, W.K. and Zitikis, R. (2014).

IMA Journal of Management Mathematics, 25 (1), 57–72.

(107) The shape of the Borwein-Affleck-Girgensohn function generated by completely monotone and Bernstein functions. Sendov, H.S. and Zitikis, R. (2014).

Journal of Optimization Theory and Applications, 160 (1), 67–89.

- (108) Heavy tailed capital incomes: Zenga index, statistical inference, and ECHP data analysis. Greselin, F., Pasquazzi, L. and Zitikis, R. (2014). *Extremes: Statistical Theory and Applications in Science, Engineering and Economics*, 17 (1), 127–155.
- (109) Beyond the Gompertz law: exploring the late-life mortality deceleration phenomenon. Bebbington, M., Green, R., Lai, C.D. and Zitikis, R. (2014). *Scandinavian Actuarial Journal*, 2014 (3), 189–207.
- (110) Estimation of optimal portfolio weights under parameter uncertainty and user-specified constraints: a perturbation method.
   Bennett, C.J. and Zitikis, R. (2014).
   Journal of Statistical Theory and Practice (Special issue on "Advances in Interdisciplinary Statistics and Combinatorics"), 8 (3), 423–438.
- (111) Measuring the lack of monotonicity in functions. Qoyyimi, D.T. and Zitikis, R. (2014). *The Mathematical Scientist*, 39 (2), 107–117.
- 2015 \_
- (112) Trends in disguise.
   Brazauskas, V., Jones, B.L. and Zitikis, R. (2015).
   Annals of Actuarial Science, 9 (1), 58–71.
- (113) Assessing variation: a unifying approach for all scales of measurement. Gadrich, T., Bashkansky, E. and Zitikis, R. (2015). *Quality & Quantity: International Journal of Methodology*, 49 (3), 1145–1167.
- (114) Ignorance, lotteries, and measures of economic inequality. Bennett, C.J. and Zitikis, R. (2015). *Journal of Economic Inequality*, 13 (2), 309–316.
- (115) Measuring association via lack of co-monotonicity: the LOC index and a problem of educational assessment. Qoyyimi, D.T. and Zitikis, R. (2015). Dependence Modeling, 3 (1), 83–97.
- (116) Paths and indices of maximal tail dependence.
   Furman, E., Su, J. and Zitikis, R. (2015).
   ASTIN Bulletin: the Journal of the International Actuarial Association, 45 (3), 661–678.
- 2016 .
- (117) Dynamic uncertainty in cost-benefit analysis of evacuation prior to a volcanic eruption. Bebbington, M. and Zitikis, R. (2016). *Mathematical Geosciences*, 48 (2), 123–148.
- (118) Tail dependence of the Gaussian copula revisited. Furman, E., Kuznetsov, A., Su, J. and Zitikis, R. (2016). *Insurance: Mathematics and Economics*, 69 (July), 97–103.
- (119) Background risk models and stepwise portfolio construction. Asimit, A.V., Vernic, R. and Zitikis, R. (2016). *Methodology and Computing in Applied Probability*, 18 (3), 805–827.

- (120) Optimal reinsurance policies under the VaR risk measure when the interests of both the cedent and the reinsurer are taken into account. Jiang, W., Ren, J. and Zitikis, R. (2017). *Risks* (Selected papers from "The 6th Gerber-Shiu Workshop and the 3rd Modeling of Heavy-Tail Phenomena Workshop" with Guest Editor Qihe Tang), 5 (1), 1–22. (Article #11.)
- (121) Should we opt for the Black Friday discounted price or wait until the Boxing Day?
   Wu, J. and Zitikis, R. (2017).
   The Mathematical Scientist, 42 (1), 1–12.
- (122) Optimal two-stage pricing strategies from the seller's perspective under the uncertainty of buyer's decisions. Egozcue, M., Wu, J. and Zitikis, R. (2017). *Journal of Statistical Distributions and Applications*, 4 (13), 1–25.
- (123) Beyond the Pearson correlation: heavy-tailed risks, weighted Gini correlations, and a Gini-type weighted insurance pricing model.
   Furman, E. and Zitikis, R. (2017).
   ASTIN Bulletin: the Journal of the International Actuarial Association, 47 (3), 919–942.
- (124) Gini-type measures of risk and variability: Gini shortfall, capital allocations, and heavy-tailed risks. Furman, E., Wang, R. and Zitikis, R. (2017). *Journal of Banking and Finance*, 83 (October), 70–84.
- (125) Quantifying non-monotonicity of functions and the lack of positivity in signed measures. Davydov, Y. and Zitikis, R. (2017). *Modern Stochastics: Theory and Applications*, 4 (3), 219–231.
- (126) Measuring and comparing student performance: a new technique for assessing directional associations. Chen, L. and Zitikis, R. (2017). *Education Sciences*, 7 (4), 1–27. (Article #77.)
- (127) Statistical foundations for assessing the difference between the classical and weighted-Gini betas. Gribkova, N. and Zitikis, R. (2017). *Mathematical Methods of Statistics*, 26 (4), 267–281.
- (128) CMPH: a multivariate phase-type aggregate loss distribution. Ren, J. and Zitikis, R. (2017). Dependence Modeling, 5 (1), 304–315.

(129) From the classical Gini index of income inequality to a new Zenga-type relative measure of risk: a modeller's perspective. Greselin, F. and Zitikis, R. (2018).

*Econometrics* (Special issue on "Econometrics and Income Inequality" with Guest Editors Martin Biewen and Emmanuel Flachaire), 6 (1), 1–20. (Article #4.)

- (130) Weighted risk capital allocations in the presence of systematic risk. Furman, E., Kuznetsov, A. and Zitikis, R. (2018). *Insurance: Mathematics and Economics*, 79 (March), 75–81.
- (131) Estimating the index of increase via balancing deterministic and random data. Chen, L., Davydov, Y., Gribkova, N. and Zitikis, R. (2018). *Mathematical Methods of Statistics*, 27 (2), 83–102.
- (132) A user-friendly algorithm for detecting the influence of background risks on a model. Gribkova, N. and Zitikis, R. (2018). *Risks* (Special issue on "Risk, Ruin and Survival: Decision Making in Insurance and Finance"), 6 (3), 1–11. (Article #100.)

- (133) Assessing transfer functions in control systems. Gribkova, N. and Zitikis, R. (2019). Journal of Statistical Theory and Practice, 13 (2), 1–33. (Article #35.)
- (134) Statistical detection and classification of background risks affecting inputs and outputs. Gribkova, N. and Zitikis, R. (2019). *Metron – International Journal of Statistics*, 77 (1), 1–18.
- (135) Practice oriented and Monte Carlo based estimation of the value-at-risk for operational risk measurement. Greselin, F., Piacenza, F. and Zitikis, R. (2019). *Risks* (Special issue on "Risk, Ruin and Survival: Decision Making in Insurance and Finance"), 7 (2), 1–20. (Article #50.)

<sup>2018</sup> 

- (136) Weighted allocations, their concomitant-based estimators, and asymptotics. Gribkova, N. and Zitikis, R. (2019). Annals of the Institute of Statistical Mathematics, 71 (4), 811–835.
- (137) Searching for and quantifying nonconvexity regions of functions. Davydov, Y., Moldavskaya, E. and Zitikis, R. (2019). *Lithuanian Mathematical Journal* (Special issue dedicated to Professor Vygantas Paulauskas on the occasion of his 75th birthday), 59 (4), 507–518.
- 2020 \_
- (138) Weak comonotonicity. Wang, R. and Zitikis, R. (2020). European Journal of Operational Research, 282 (1), 386–397.
- (139) Quantifying and analyzing nonlinear relationships with a fresh look at a classical dataset of student scores. Chen, L. and Zitikis, R. (2020). *Quality & Quantity: International Journal of Methodology*, 54 (4), 1145–1169.
- (140) A statistical methodology for assessing the maximal strength of tail dependence.
   Sun, N., Yang, C. and Zitikis, R. (2020).
   ASTIN Bulletin: the Journal of the International Actuarial Association, 50 (3), 799–825.
- (141) Functional correlations in the pursuit of performance assessment of classifiers. Gribkova, N. and Zitikis, R. (2020). International Journal of Pattern Recognition and Artificial Intelligence, 34 (13), Article 2051013.
- (142) Detecting intrusions in control systems: a rule of thumb, its justification and illustrations. Gribkova, N. and Zitikis, R. (2020). Journal of Statistics and Management Systems, 23 (8), 1285–1304.
- 2021 \_
- (143) An axiomatic foundation for the Expected Shortfall. Wang, R. and Zitikis, R. (2021). *Management Science*, 67 (3), 1413–1429.
- 2022 .
- (144) Risk measures induced by efficient insurance contracts.
   Wang, Q., Wang, R. and Zitikis, R. (2022).
   Insurance: Mathematics and Economics, 103 (March), 56–65.
- (145) Empirical tail conditional allocation and its consistency under minimal assumptions. Gribkova, N., Su, J. and Zitikis, R. (2022). Annals of the Institute of Statistical Mathematics, 74 (4), 713–735.
- (146) Detecting systematic anomalies affecting systems when inputs are stationary time series. Sun, N., Yang, C. and Zitikis, R. (2022). *Applied Stochastic Models in Business and Industry*, 38 (3), 512–544.
- (147) Inference for the tail conditional allocation: large sample properties, insurance risk assessment, and compound sums of concomitants. Gribkova, N., Su, J. and Zitikis, R. (2022).
- *Insurance: Mathematics and Economics*, 107 (November), 199–222. (148) Tail maximal dependence in bivariate models: estimation and applications.
- Sun, N., Yang, C. and Zitikis, R. (2022). Mathematical Methods of Statistics, 31 (4), 170–196.
- 2023 \_
- (149) The slicing method: determining insensitivity regions of probability weighting functions. Egozcue, M., Fuentes García, L. and Zitikis, R. (2023). *Computational Economics*, 61 (4), 1369–1402.
- (150) Assessing the difference between integrated quantiles and integrated cumulative distribution functions. Wei, Y. and Zitikis, R. (2023). *Insurance: Mathematics and Economics*, 111 (July), 163–172.
- (151) A text analysis of operational risk loss descriptions. Di Vincenzo D., Greselin, F., Piacenza, F. and Zitikis, R. (2023). *Journal of Operational Risk*, 18 (3), 63–90.
- (152) Estimating the VaR-induced Euler allocation rule. Gribkova, N., Su, J. and Zitikis, R. (2023). ASTIN Bulletin: the Journal of the International Actuarial Association, 53 (3), 619–635.
   Online supplementary material for "Estimating the VaR-induced Euler allocation rule": lemmas and proofs.

#### 2024

- (153) Alternative ways to initiate students' intuition, and hence, internalization, of why zero factorial is equal to one. Mahmood, M., Murray, L., Zitikis, R. and Mahmood, I. (2024). *Journal on Mathematics Education*, 15 (3), 735–750.
- (154) Assessing monotonicity: an approach based on transformed order statistics. Chen, A., Gribkova, N. and Zitikis, R. (2024). *Mathematical Methods of Statistics*, 33 (1), 79–94.
- (155) Natural language processing-based detection of systematic anomalies among the narratives of consumer complaints.

Gao, P., Sun, N., Wang, X., Yang, C. and Zitikis, R. (2024). *Journal of Operational Risk*, 19 (2), 79–104.

Online supplementary material for "Natural language processing-based detection of systematic anomalies among the narratives of consumer complaints."

(156) Measuring discrete risks on infinite domains: theoretical foundations, conditional five number summaries, and data analyses. Yu, D., Brazauskas, V. and Zitikis, R. (2024).

North American Actuarial Journal, 28 (3), 678–694.

- (157) Assessing the coverage probabilities of fixed-margin confidence intervals for the tail conditional allocation. Gribkova, N., Su, J. and Zitikis, R. (2024). Annals of the Institute of Statistical Mathematics, 76 (5), 821–850.
- (158) Measuring income inequality via percentile relativities.
   Brazauskas, V., Greselin, F. and Zitikis, R. (2024).
   Quality & Quantity: International Journal of Methodology, 58 (5), 4859–4896.

#### 2025 .

(159) Predicting classification errors using NLP-based machine learning algorithms and expert opinions. Gao, P., Yang, C., Sun, N. and Zitikis, R. (to appear). *Machine Learning with Applications*, 19 (March), 1–16 (Article #100630).

PUBLICATIONS IN CONFERENCE PROCEEDINGS

# 1991 \_\_\_\_\_

(160) On large deviations for L-estimates.

Zitikis, R. (1991). In: *New Trends in Probability and Statistics*, Vol. 1. Proceedings of the Bakuriani colloquium in honour of Yu. V. Prohorov (Eds.: V.V. Sazonov and T. Shervashidze), pp. 137–164. Bakuriani, Georgia, February 24 – March 4, 1990. De Gruyter, Berlin.

#### 1993 \_

(161) A Berry-Esséen bound for multivariate L-estimates with explicit dependence on dimension. Zitikis, R. (1993).

In: *Stability Problems for Stochastic Models*. Proceedings of the Suzdal International Seminar (Eds.: V.V. Kalashnikov and V.M. Zolotarev), pp. 197–211. Suzdal, Russia, January 27 – February 2, 1991. Lecture Notes in Mathematics, Vol. 1546. Springer, Berlin.

#### 1998

- (162) The Vervaat process.
  - Źitikis, R. (1998).

In: Asymptotic Methods in Probability and Statistics – A Volume in Honour of Miklós Csörgő (Ed. B. Szyszkowicz), 667–694. North-Holland, Amsterdam.

#### 2002

(163) Analysis of indices of economic inequality from a mathematical point of view. Zitikis, R. (2002).
(Invited algorithm of Malanceira, Mathematical Conference, State University of Malanceira, State University of Malanceira, State University, State Uni

(Invited plenary lecture at the 11th Indonesian Mathematics Conference, State University of Malang (UM), Indonesia.) *Matematika*, 8, 772–782.

(164) Estimating the turning points of failure rate and mean residual life functions. Bebbington, M., Lai, C.D. and Zitikis, R. (2005). In: Proceedings of the international symposium on "Stochastic Models in Reliability, Safety, Security and Logistics" dedicated to the memory of Prof. K. Kordonsky (Eds.: I. Frenkel, I. Gertsbakh, I. Kabashkin, Z. Laslo, A. Lisnianski), pp. 38–41. Shamoon College of Engineering, Beer Sheva, Israel, February 15–17, 2005.

<sup>2005 -</sup>

(165) Changing phases of human life expectancy: Can we find them mathematically? Bebbington, M., Lai, C.D. and Zitikis, R. (2006).
In: Proceedings of the conference on *"Advancing Health Equity."* World Institute for Development Economics Research, United Nations University, Helsinki, Finland, September 29–30, 2006.

# 2007 \_

(166) Modeling lactation curves using New Zealand data. Bebbington, M., Lai, C.D. and Zitikis, R. (2007). In: Proceedings of the international conference of the International Society of Science and Applied Technologies (ISSAT) on "*Modeling of Complex Systems and Environments*" (Ed.: H. Pham), pp. 11–15. Ho Chi Minh City, Vietnam, July 16–18, 2007.

2009

- (167) Weighted pricing functionals. Furman, E. and Zitikis, R. (2009). *Actuarial Research Clearing House (ARCH)*, 2009.1, 31 pages. Proceedings of the 43rd Actuarial Research Conference, University of Regina, Saskatchewan, Canada, August 14–16, 2008.
- (168) General Stein-type decompositions of covariances and the capital asset pricing model. Furman, E. and Zitikis, R. (2009).
  In: Proceedings of the 58th Annual Meeting of the Midwest Finance Association, Vol. 6 (Ed.: L. E. Blose), 8 pages. Chicago, Illinois, U.S.A., March 4–7, 2009.

## 2010

- (169) Weighted pricing functionals: a new method and its manifold implications. Furman, E. and Zitikis, R. (2010).
  In: Proceedings of the International Symposium on "Stochastic Models in Reliability Engineering, Life Science and Operations Management" (Eds.: I. Frenkel, I. Gertsbakh, L. Khvatskin, Z. Laslo, and A. Lisnianski), pp. 283–289. Shamoon College of Engineering (SCE), Beer Sheva, Israel, February 8–11, 2010.
- (170) Discrete bathtub distributions: mind the step function! Bebbington, M., Lai, C.D., Wellington, M. and Zitikis, R. (2010). In: Advanced Reliability Modeling IV: Beyond the Traditional Reliability and Maintainability Approaches. Proceedings of the 4th Asia-Pacific International Symposium on Advanced Reliability and Maintenance Modeling (Eds.: S. Chukova, J. Hayward and T. Dohi), pp. 57–64. Wellington, New Zealand, December 2–4, 2010. McGraw-Hill, Taiwan.
- (171) Exporting reliability theory to the social sciences. Lai, C.D., Zitikis, R. and Bebbington, M. (2010). In: Advanced Reliability Modeling IV: Beyond the Traditional Reliability and Maintainability Approaches. Proceedings of the 4th Asia-Pacific International Symposium on Advanced Reliability and Maintenance Modeling (Eds.: S. Chukova, J. Hayward and T. Dohi), pp. 401–408. Wellington, New Zealand, December 2–4, 2010. McGraw-Hill, Taiwan.

(172) A tweet data analysis for detecting emerging operational risks. Di Vincenzo D., Greselin, F., Piacenza, F. and Zitikis, R. (2024). In: Proceedings of the 11th International Conference on *Mathematical and Statistical Methods for Actuarial Sciences and Finance* (Eds.: M. Corazza, F. Gannon, F. Legros, C. Pizzi, V. Touzé), pp. 136–142. MAF 2024. University of Le Havre Normandie, Le Havre, France, April 4–6, 2024. Springer, Cham.

#### 2025 \_

(173) Median-based inequality measures.

Brazauskas, V., Greselin, F. and Zitikis, R. (2025). In: *Methodological and Applied Statistics and Demography III* (Eds.: A. Pollice and P. Mariani), pp 279–284. SIS 2024. Italian Statistical Society Series on Advances in Statistics. Springer, Cham.

# DISCUSSIONS, EDITORIALS, LETTERS, BRIEFS

2000 .

(174) Review of "Stochastic Models in Reliability" by T. Aven and U. Jensen (Springer, New York, 1999. xii+270 pp.)
 Zitikis, R. (2000).
 Statistics & Decisions, 18, 336–337.

(175) Reply to V. Brazauskas and T. Kaiser concerning their discussion of the paper "Empirical estimation of risk measures and related quantities." Jones, B.L. and Zitikis, R. (2004). *North American Actuarial Journal*, 8 (July), 117–118.

<sup>2024 -</sup>

<sup>2004</sup> 

#### 2007 \_

- (176) Reply to S. Nadarajah concerning "A flexible Weibull extension." Bebbington, M., Lai, C.D. and Zitikis, R. (2007). *Reliability Engineering & System Safety*, 92 (10), 1485.
- (177) Discussion of "An extreme value analysis of advanced age mortality data" by K.A. Watts, D.J. Dupuis and B.L. Jones.
  Bebbington, M., Lai, C.D. and Zitikis, R. (2007).
  North American Actuarial Journal, 11 (3), 173–174.
- (178) Discussion of "An actuarial premium pricing model for nonnormal insurance and financial risks in incomplete markets" by Zinoviy Landsman and Michael Sherris. Furman, E. and Zitikis, R. (2007). North American Actuarial Journal, 11 (3), 174–176.
- (179) Addendum to "Modeling human mortality using mixtures of bathtub shaped failure distributions." Bebbington, M., Lai, C.D. and Zitikis, R. (2007). *Journal of Theoretical Biology*, 249 (2), 409–410.

(180) Editorial of "Actuarial and Financial Risks: Models, Statistical Inference, and Case Studies." Zitikis, R., Furman, E., Necir, A., Nešlehová, J. and Puri, M.L. (2010). *Journal of Probability and Statistics* (Special issue on "Actuarial and Financial Risks: Models, Statistical Inference, and Case Studies"), 2010, Article ID 392498, 3 pages.

#### 2014

- (181) Research brief on "Income inequality in Canada and the mitigating influence of provincial tax policies: findings from the 2006 census." Corbett, B.A., Greselin, F., Pasquazzi, L., Williams, R. and Zitikis, R. (2014). Research brief to the House of Commons Standing Committee on Finance, Ottawa, Ontario, Canada. FINA Committee related document: Income Inequality in Canada.
- 2017 \_
- (182) An adaptation of the classical CAPM to insurance: the weighted insurance pricing model. Furman, E. and Zitikis, R. (2017). Casualty Actuarial Society E-Forum, Spring 2017, 1–12.
- 2019 .
- (183) Editorial of "Risk, Ruin and Survival: Decision Making in Insurance and Finance." Ren, J., Sendova, K. and Zitikis, R. (2019). *Risks* (Special issue on "Risk, Ruin and Survival: Decision Making in Insurance and Finance"), 7 (3), 1–7. (Article #96.)

#### EDITED BOOKS

#### 2020 .

 (184) Risk, Ruin and Survival: Decision Making in Insurance and Finance.
 Zitikis, R., Ren, J. and Sendova, K. (2020).
 Open-access book (212 pages) published by the Multidisciplinary Digital Publishing Institute (MDPI), Basel, Switzerland; ISBN 978-3-03928-516-7 (pbk); ISBN 978-3-03928-517-4 (pdf).

# Funding

# **RESEARCH GRANTS**

- 1994 1996 Canada International Fellowship.
   Awarded by the Natural Sciences and Engineering Research Council (NSERC) of Canada.
- 2000 2004 Stochastic Processes with Applications in Statistics.
   Awarded by the Natural Sciences and Engineering Research Council (NSERC) of Canada.
- 2004 2008 Stochastic Processes with Applications in Econometrics and Actuarial Sciences.
  - Awarded by the Natural Sciences and Engineering Research Council (NSERC) of Canada.

2006 Research Fund Award

- Awarded by Massey University, Palmerston North, New Zealand.
- Research at the Institute of Information Sciences and Technology, Massey University, Palmerston North, New Zealand.
- 2007 From Risk Measurement to Risk Management.

<sup>2010 .</sup> 

- Awarded by the Zimmerman Foundation for the Study of Banking and Finance.
- Research at the University of Haifa, Israel.
- Team members: E. Furman, U. Makov, and R. Zitikis.
- 2007 Visitors Grant
  - Awarded by the Caesarea Edmond Benjamin de Rothschild Foundation Institute for Interdisciplinary Applications of Computer Science.
  - Research at the University of Haifa, Israel.
  - Team members: E. Furman, U. Makov, and R. Zitikis.
- 2007 Detecting Deterministic Signals in Noisy Environments.
  - Awarded by the France-Canada Cooperation Program, Scientific Services, French Embassy, Ottawa, Canada.
  - Research at the University of Science and Technology of Lille, Villeneuve d'Ascq, France.
  - Team members: Y. Davydov and R. Zitikis.
- 2007 2009 Weighted Premium Calculation Principles and Risk Capital Allocations.
  - Awarded by the Committee on Knowledge Extension Research (CKER) of the Society of Actuaries (SOA) Research Institute, Schaumburg, Illinois, U.S.A.
  - Team members: R. Zitikis (Principal Investigator) and E. Furman (Co-Investigator).
- 2008 2010 Statistical Inference in Actuarial, Engineering, and Life Sciences.
  - Awarded by the Natural Sciences and Engineering Research Council (NSERC) of Canada.
- 2010 2011 The Covariance Sign of Transformed Random Variables with Applications to Economics, Finance and Insurance.
  - Awarded by the Research Committee of Hong Kong Baptist University, Hong Kong.
  - Team members: W.K. Wong (Principal Investigator), M. Egozcue (Co-Investigator),
    - L. Fuentes García (Co-Investigator), and R. Zitikis (Co-Investigator).
- 2010 2012 A Mathematical Model for Late-Life Mortality.
  - Awarded by the Committee on Knowledge Extension Research (CKER) of the Society of Actuaries (SOA) Research Institute, Schaumburg, Illinois, U.S.A.
  - Team members: M. Bebbington (Principal Investigator), C.D. Lai (Co-Investigator), and R. Zitikis (Co-Investigator).
- 2010 2015 Quantitative Management of Risks.
  - Awarded by the Natural Sciences and Engineering Research Council (NSERC) of Canada.
- 2011 2012 Visiting University Scholar Program Award.
  - Awarded by the Office of the Vice-President (Research and International Relations), Western University, London, Ontario, Canada.
    Team members: F. Greselin (University of Milano-Bicocca, Italy, and a recipient of the designation "West-
  - Team members: F. Greselin (University of Milano-Bicocca, Italy, and a recipient of the designation "Western Fellow" awarded by the Office of the Vice-President for Research and International Relations, UWO, Canada), and R. Zitikis (Principal Investigator).
- 2015 2016 Dynamic Models for Risk Management: Big Data, Statistical Inference, and Decision Making. – Awarded by the Natural Sciences and Engineering Research Council (NSERC) of Canada.
- 2015 2016 The Capital Asset Pricing Model: An Insurance Variant.
  - Awarded by the Casualty Actuarial Society (CAS), Arlington, Virginia, U.S.A.
    - Team members: E. Furman (Consultant) and R. Zitikis (Co-consultant).
- 2016 2017 A New Method for Educational Assessment: Measuring Association via LOC Index.
  - Mitacs Globalink Partnership Award from the Canadian national research organization for Mathematics of Information Technology and Complex Systems (MITACS), in partnership with Hefei Gemei Culture and Education Technology Co. Ltd, Hefei, China.
    - Team members: J. Wu (Ph.D. Student Intern) and R. Zitikis (Academic Supervisor).
- 2016 2021 From Data to Integrated Risk Management and Smart Living: Mathematical Modelling, Statistical Inference, and Decision Making.
  - Awarded by the Natural Sciences and Engineering Research Council (NSERC) of Canada.
- 2018 2019 Financial Contagion Measures Based on Co-movements.
  - Mitacs Globalink Research Award from the Canadian national research organization for Mathematics of Information Technology and Complex Systems (MITACS), awarded for conducting research at the Central University of Finance and Economics (CUFE), Beijing, China.
  - Team members: N. Sun (Ph.D. Student Intern), J. Wu (Academic Supervisor at CUFE, Beijing, China), and R. Zitikis (Academic Supervisor at Western University, Canada).
- 2018 2020 Risk Aggregation Beyond the Normal Limits.
  - Mitacs Accelerate Award from the Canadian national research organization for Mathematics of Information Technology and Complex Systems (MITACS), in partnership with Sun Life Financial.
  - Lead academic supervisors: E. Furman and R. Zitikis.
- 2019 Bridging Natural and Machine Intelligence for Calculating Insurance Premiums.

- Mitacs Globalink Research Award from the Canadian national research organization for Mathematics of Information Technology and Complex Systems (MITACS), awarded for conducting research at Central Michigan University (CMU), Michigan, U.S.A.
- Team members: U. Karan (M.Sc. Student Intern), R.G.M. Samanthi (Academic Supervisor at CMU, Michigan, U.S.A), and R. Zitikis (Academic Supervisor at Western University, Canada).
- 2019 2020 Price Elasticities and Promotion Cannibalization Effect on Promotion Activities.
  - Mitacs Accelerate Award from the Canadian national research organization for Mathematics of Information Technology and Complex Systems (MITACS), in partnership with Unilever Canada.
  - Team members: L. Chen (PhD Student at Western University and Intern at Unilever Canada) and R. Zitikis (Academic Supervisor).
- 2020 Pricing Model from Econometric Perspective and Visualizing Promotion Cannibalization Effect on Promotion Activities.
  - Mitacs Accelerate Award from the Canadian national research organization for Mathematics of Information Technology and Complex Systems (MITACS), in partnership with Unilever Canada.
  - Team members: L. Chen (PhD Student at Western University and Intern at Unilever Canada) and R. Zitikis (Academic Supervisor).
- 2020 2021 Demand Estimation in Consumer-Packaged Goods Market Using BLP Method.
  - Joint Mitacs Accelerate Award between the Southern Ontario Smart Computing Innovation Platform (SOSCIP) and the Canadian national research organization for Mathematics of Information Technology and Complex Systems (MITACS), in partnership with Unilever Canada.
  - Team members: L. Chen (PhD Student at Western University and Intern at Unilever Canada) and R. Zitikis (Academic Principal Investigator).
- 2020 From Data to Integrated Risk Management and Smart Living: Mathematical Modelling, Statistical Inference, and Decision Making.
  - COVID-19 supplement to the 2016–2021 grant under the same title.
  - Awarded by the Natural Sciences and Engineering Research Council (NSERC) of Canada.
- 2021 2022 From Data to Integrated Risk Management and Smart Living: Mathematical Modelling, Statistical Inference, and Decision Making.
  - COVID-19 extension of the 2016–2021 grant under the same title.
  - Awarded by the Natural Sciences and Engineering Research Council (NSERC) of Canada.
- 2021 2022 Risk Aggregation Beyond the Normal Limits.
  - An extension of the 2018–2020 Mitacs Accelerate Award under the same title, awarded by the Canadian national research organization for Mathematics of Information Technology and Complex Systems (MITACS), in partnership with Sun Life Financial.
  - Lead academic supervisors: E. Furman and R. Zitikis.
- 2022 2024 The State of the Art in Anomaly Detection and Model Construction, with the Focus on Natural Language Processing (NLP) in Actuarial Modelling.
  - Awarded by the Committee on Knowledge Extension Research (CKER) of the Society of Actuaries (SOA) Research Institute, Schaumburg, Illinois, U.S.A., and the Casualty Actuarial Society (CAS), Arlington, Virginia, U.S.A.
  - Team members: P. Gao, X. Wang, and R. Zitikis (Lead Researcher).
- 2022 2027 Automated Statistical Techniques for Systematic Anomaly Detection in High Frequency Data.
   Awarded by the Natural Sciences and Engineering Research Council (NSERC) of Canada.
- 2023 2028 New Order of Risk Management: Theory and Applications in the Era of Systemic Risk.
  - Awarded by the Natural Sciences and Engineering Research Council (NSERC) of Canada, and the national research organization Mathematics of Information Technology and Complex Systems (MITACS) of Canada, under the NSERC Alliance–Mitacs Accelerate program.
  - Grantee: E. Furman (York University). Co-grantees: J. Cao (York University), I. Ferrara (York University), H. Joe (University of British Columbia), X.S. Lin (University of Toronto), D. Matten (York University), S.M. Pesenti (University of Toronto), R.S. Rosenbaum (York University), F. Yang (University of Waterloo), and R. Zitikis (Western University).
    Industry partners: Aviva Canada, CANNEX Financial Exchanges Limited, Great-West Lifeco, Sun Life
  - Industry partners: Aviva Canada, CANNEX Financial Exchanges Limited, Great-West Lifeco, Sun Life Assurance Company of Canada, and Wawanesa Mutual Insurance Company.
- 2024 2025 Predicting Classification Errors Using NLP-based Machine Learning Algorithms and Expert Opinions.
   Awarded by the Academic Research Grant Program of the Canadian Institute of Actuaries (CIA), Ottawa, Ontario, Canada.
  - Team members: P. Gao, N. Sun, C. Yang, and R. Zitikis (Lead Researcher).
- 2025 2026 Multi-Dimensional Value-at-Risk: Its Role and Properties in Managing Risks of Dependent Business Lines.
  - Awarded by the Academic Research Grant Program of the Canadian Institute of Actuaries (CIA), Ottawa, Ontario, Canada.

- Team members: M. Wang and R. Zitikis (Lead Researcher).

# TEACHING GRANTS

The University Students Council Teaching Honour Roll Award of Excellence for 2014–15, Western University

- 2013 Doctoral Supervision Internal Grant.
  - Awarded by the School of Graduate and Postdoctoral Studies, Western University, London, Ontario, Canada.
- 2014 Doctoral Supervision Internal Grant.
  - Awarded by the School of Graduate and Postdoctoral Studies, Western University, London, Ontario, Canada.
- 2014 2016 Western Science Incremental Funding Program.
  - For supervising a large group of domestic graduate/doctoral students.
    - Awarded by the Faculty of Science, Western University, London, Ontario, Canada.
- 2015 Doctoral Supervision Internal Grant.

- Awarded by the School of Graduate and Postdoctoral Studies, Western University, London, Ontario, Canada.

- 2021 2022 Design, Development, and Delivery of VR-Supported Online Course on the Economics of Insurance and Decision Making under Risk.
  - Awarded by eCampusOntario, in support of the Government of Ontario's Virtual Learning Strategy (VLS).
  - Team members: T. Karagyozova (Project Lead), I. Ferrara (Collaborator), E. Furman (Collaborator) and R. Zitikis (Collaborator).

# EQUIPMENT GRANTS

- 2000 Natural Sciences and Engineering Research Council (NSERC) of Canada. (Joint application with a number of colleagues.)
- 2005 Natural Sciences and Engineering Research Council (NSERC) of Canada. (Joint application with a number of colleagues.)

# **Research presentations**

# CONFERENCES, WORKSHOPS, SEMINARS

My participation at many of these events was possible due to generous support by host institutions and organizers, and I gratefully acknowledge this

- 1988 Seminar. Institute for Information Transmission Problems, Russian Academy of Sciences, Moscow, Russia.
- 1991 International seminar on Stability Problems for Stochastic Models. Suzdal, Russia.
- 1994 Workshop on Empirical Reliability and Change Point Analysis. Laboratory for Research in Statistics and Probability, Ottawa, Ontario, Canada.
  - Seminar. Centre for Mathematics and Computer Science (CWI), Amsterdam, The Netherlands.
  - Seminar. Laboratory for Research in Statistics and Probability, Carleton University, Ottawa, Ontario, Canada.
- 1995 Workshop on Empirical Reliability and Change Point Analysis. Laboratory for Research in Statistics and Probability, Ottawa, Ontario, Canada.
- 1996 Workshop on Empirical Reliability and Change Point Analysis. Laboratory for Research in Statistics and Probability, Ottawa, Ontario, Canada.
  - Seminar. Laboratory for Research in Statistics and Probability, Carleton University, Ottawa, Ontario, Canada.
- 1997 International conference on Asymptotic Methods in Probability and Statistics in honour of Miklós Csörgő on the occasion of his 65th birthday. Carleton University, Ottawa, Ontario, Canada.
  - Seminar. Centre for Mathematics and Computer Science (CWI), Amsterdam, The Netherlands.
  - Seminar. Department of Mathematics, University of Groningen, Groningen, The Netherlands.
- 1998 Probability session of the Canadian Mathematical Society and the Fields Institute meeting. Kingston, Ontario, Canada.
  - Seminar. Department of Mathematics and Statistics, York University, Toronto, Ontario, Canada.
  - Seminar. Laboratory for Research in Statistics and Probability, Carleton University, Ottawa, Ontario, Canada.
- 1999 4th Hungarian colloquium on Limit Theorems of Probability and Statistics. Balatonlelle, Hungary.
  - Seminar. Centre for Mathematics and Computer Science (CWI), Amsterdam, The Netherlands.
- 2000 1st international statistics workshop. University of Manitoba, Winnipeg, Manitoba, Canada.

- Seminar. Department of Statistics, University of Winnipeg, Winnipeg, Manitoba, Canada.
- Statistical showcase of the Statistical Association of Manitoba. Winnipeg, Manitoba, Canada.
- 2001 International symposium in honour of David Vere-Jones on the occasion of his 65th birthday. Victoria University of Wellington, Wellington, New Zealand.
  - Statistics Odyssey of the Statistical Association of Manitoba, Winnipeg, Manitoba, Canada.
  - Seminar. Department of Mathematical and Statistical Sciences, University of Alberta, Edmonton, Alberta, Canada.
  - Seminar. Paul Painlevé Laboratory, University of Science and Technology of Lille, Villeneuve d'Ascq, France.
  - Seminar. Department of Statistics and Actuarial Science, University of Waterloo, Waterloo, Ontario, Canada.
  - Seminar. Institute of Information Sciences and Technology, Massey University, Palmerston North, New Zealand.
  - Seminar. Centre for Mathematics and Computer Science (CWI), Amsterdam, The Netherlands.
- 2002 11th Indonesian mathematics conference. State University of Malang (UM), Indondesia.
  - Workshop (jointly with R. Helmers and I.W. Mangku) on Computer Intensive Statistics under the auspices of the bi-national scientific cooperation program between Indonesia and the Netherlands. Bandung Institute of Technology (ITB), Bandung, Indonesia.
  - International conference on New Results in Asymptotic Stochastics in honour of Miklós Csörgő on the occasion of his 70th birthday. Carleton University, Ottawa, Ontario, Canada.
- 2003 International conference on Point Processes–Theory and Applications in honor of David Brillinger. Banff International Research Station, Alberta, Canada.
  - Seminar. Department of Applied Mathematics, Western University, London, Ontario, Canada.
  - Seminar. Department of Mathematics and Statistics, University of Calgary, Calgary, Alberta, Canada.
  - Seminar. Probability Laboratory, University of Paris VI, Paris, France.
  - Seminar. Paul Painlevé Laboratory, University of Science and Technology of Lille, Villeneuve d'Ascq, France.
  - Seminar. Department of Mathematics, University of Utah, Salt Lake City, U.S.A.
- 2004 International conference on Distribution Theory, Order Statistics and Inference in honor of Barry C. Arnold on the occasion of his 65th birthday. University of Cantabria, Santander, Spain.
  - International conference on Economic, Mathematical and Statistical Aspects of Modelling Financial Data. Graz University of Technology, Graz, Austria.
  - Joint Ottawa-Carleton colloquium. Carleton University, Ottawa, Ontario, Canada.
  - Seminar. Centre for Mathematics and Computer Science (CWI), Amsterdam, The Netherlands.
  - Seminar. Department of Mathematics, University of Sussex, Brighton, Sussex, U.K.
- 2005 EPAM symposium on Statistics and Applied Probability within the Extended Programme in Applied Mathematics (EPAM) between Indonesia and the Netherlands. Bandung Institute of Technology (ITB), Bandung, Indonesia.
  - Workshop (many lectures) on Statistical Inference in Econometrics. Department of Statistics, Faculty of Mathematics and Natural Sciences, Islamic University of Indonesia (UII), Yogyakarta, in cooperation with the Doctoral Program in Economics, Faculty of Economics, Islamic University of Indonesia (UII), Yogyakarta, Indonesia.
  - Workshop on Linear Analysis and Probability. Texas A&M University, College Station, Texas, U.S.A.
  - International symposium on Stochastic Models in Reliability, Safety, Security and Logistics (SMRSSL'05) dedicated to the memory of Prof. K. Kordonsky. Shamoon College of Engineering, Beer-Sheva, Israel.
  - Seminar. Department of Industrial Engineering and Management, Ben-Gurion University of the Negev, Beer-Sheva, Israel.
  - Seminar. Department of Mathematics and Statistics, McMaster University, Hamilton, Ontario, Canada.
  - Seminar. Department of Economics, Carleton University, Ottawa, Ontario, Canada.
  - Seminar. Laboratory for Research in Statistics and Probability, Carleton University, Ottawa, Ontario, Canada.
  - Seminar. Paul Painlevé Laboratory, University of Science and Technology of Lille, Villeneuve d'Ascq, France.
  - Seminar. Department of Economics, University of Leuven, Leuven, Belgium.
  - CRM-ISM-GERAD statistics colloquium. McGill University, Montreal, Quebec, Canada.
- 2006 International symposium in honour of Roelof Helmers. Centre for Mathematics and Computer Science (CWI), Amsterdam, The Netherlands.
  - Israel Statistical Association (ISA) annual meeting. Zichron-Ya'acov, Israel.
  - International workshop on Lorenz-Gini Type Asymptotic Methods in Statistics and their Applications. Laboratory for Research in Statistics and Probability, Carleton University, Ottawa, Ontario, Canada.

- International conference on Advancing Health Equity. World Institute for Development Economics Research. United Nations University, Helsinki, Finland.
- Meeting of Palmy Statisticians. AgResearch Ltd, Grasslands Research Centre, Palmerston North, and the Institute of Information Sciences and Technology, Massey University, Palmerston North, New Zealand.
- Seminar. Department of Mathematical Sciences, Clemson University, Clemson, South Carolina, U.S.A.
- Seminar. Department of Statistics, University of Haifa, Israel.
- Seminar. Department of Industrial Engineering and Management, Ben-Gurion University of the Negev, Beer-Sheva, Israel.
- 2007 Israel Statistical Association (ISA) annual meeting. Shefayim, Israel.
  - International conference on Statistical Models for Financial Data (SMFD II). Graz University of Technology, Graz, Austria.
  - Session on Risk Measures in Actuarial Science at the Joint Statistical Meetings (JSM). Salt Lake City, Utah, U.S.A.
  - Seminar. College of Engineering and Science, Louisiana Tech University, Ruston, Louisiana, U.S.A.
- 2008 43rd Actuarial Research Conference (ARC). University of Regina, Saskatchewan, Canada.
- 2009 58th annual meeting of the Midwest Finance Association (MFA). Chicago, Illinois, U.S.A.
  - 43rd annual conference of the Canadian Economics Association (CEA). University of Toronto, Ontario, Canada.
  - 44th Actuarial Research Conference (ARC). University of Wisconsin in Madison, Wisconsin, U.S.A.
  - Actuarial Research Group (ARG) seminar. Department of Statistical and Actuarial Sciences, Western University, London, Ontario, Canada.
- 2010 International symposium on Stochastic Models in Reliability Engineering, Life Science and Operations Management (SMRLO'10). Shamoon College of Engineering (SCE), Beer-Sheva, Israel.
  - 61st annual conference of the New Zealand Statistical Association held in conjunction with the Statistical Methodologies Symposium celebrating the work of Professor Chin-Diew Lai. Massey University, Palmerston North, New Zealand.
  - Hydrology, Hydraulics and Water Resources in an Uncertain Environment (Water 2010) within the 10<sup>th</sup> international symposium on Stochastic Hydraulics (ISSH-2010) and 5<sup>th</sup> international conference on Water Resources and Environment Research (ICWRER-2010), Quebec City, Quebec, Canada.
  - Workshop (six lectures) on Empirical Processes in Econometrics: A Practitioner's Viewpoint. School in Statistics and Mathematics Applied to Finance, University of Milano–Bicocca, Italy.
- 2011 45th annual conference of the Canadian Economics Association (CEA). University of Ottawa, Ontario, Canada.
- 2012 Barcelona international conference on Advances in Statistics (BAS2012). CosmoCaixa Barcelona, Catalonia, Spain.
  - Conference on Advances in Interdisciplinary Statistics and Combinatorics. University of North Carolina at Greensboro, North Carolina, U.S.A.
- 2014 Conference on Advances in Interdisciplinary Statistics and Combinatorics. University of North Carolina at Greensboro, North Carolina, U.S.A.
  - Workshop (four lectures) on Enterprise Risk Management, Regulation, and Governance delivered to a visiting Chinese delegation of certified public accountants and asset appraisers under the auspices of the Beijing Institute of Certified Public Accountants. London, Ontario, Canada.
  - Lecture on Measuring Risk: Issues and Solutions delivered as a part of the seminar on Operational Risk and Risk Measurement. Ivey Tangerine Leadership Centre, Toronto, Ontario, Canada.
  - Seminar. Department of Statistics and Quantitative Methods, University of Milano-Bicocca, Italy.
  - 7th international conference of the European Research Consortium for Informatics and Mathematics (ERCIM) working group on Computational and Methodological Statistics (CMStatistics). University of Pisa, Italy.
- 2015 8th international conference of the European Research Consortium for Informatics and Mathematics (ERCIM) working group on Computational and Methodological Statistics (CMStatistics). University of London, U.K.
- 2016 Seminar. Quantact Actuarial and Financial Mathematics Laboratory, Laval University, Quebec, Canada.
  - 8th international workshop on Applied Probability (IWAP2016). Toronto, Ontario, Canada.
  - International conference on Statistical Distributions and Applications. Niagara Falls, Canada.
  - Ulam Seminar. Department of Mathematics, University of Colorado at Boulder, Colorado, U.S.A.
  - Probability seminar. Department of Mathematics, University of Colorado at Boulder, Colorado, U.S.A.
  - Annual meeting of the Casualty Actuarial Society (CAS). Orlando, Florida, U.S.A.
  - Seminar. Department of Statistics and Actuarial Science, University of Waterloo, Waterloo, Ontario, Canada.

- 2017 Econometrics of Risk and Uncertainty 34th annual meeting of the Canadian Econometric Study Group (CESG). Toronto, Ontario, Canada.
- 2018 Risk and Insurance Studies Centre (RISC) forum, scheduled as part of the Centre for Financial Industries. Fields Institute, Toronto, Ontario, Canada.
  - 11th international conference of the European Research Consortium for Informatics and Mathematics (ERCIM) working group on Computational and Methodological Statistics (CMStatistics). University of Pisa, Italy.
- 2019 Quantitative Risk Management and Financial Technology 1st Waterloo conference in Statistics, Actuarial Science and Finance (WatSAF1). University of Waterloo, Ontario, Canada.
  - Seminar. Risk and Insurance Studies Centre (RISC) & Department of Mathematics and Statistics, York University, Toronto, Ontario, Canada.
  - International conference on Statistical Distributions and Applications (ICOSDA 2019). Grand Rapids, Michigan, U.S.A.
  - Actuarial seminar. Department of Mathematical Sciences, University of Wisconsin-Milwaukee, Wisconsin, U.S.A.
  - Colloquium. Department of Mathematical Sciences, University of Wisconsin-Milwaukee, Wisconsin, U.S.A.
  - Risk and Insurance Studies Centre (RISC) forum on Inclusive Insurance and Sustainable Development Goals, scheduled as part of the Fields Institute activities. Fields Institute, Toronto, Ontario, Canada.
  - Risk and Insurance Day 2019. London School of Economics and Political Science, London, U.K.
  - 12th international conference of the European Research Consortium for Informatics and Mathematics (ERCIM) working group on Computational and Methodological Statistics (CMStatistics). University of London, U.K.
- 2020 International conference on Distributions and Inequality Measures in Economics (DIME 2020). University of Milano-Bicocca, Italy.
  - Risk Management and Actuarial Science seminar (via Zoom). University of Waterloo, Canada, and Tsinghua University, China.
- 2021 Industrial Mathematics and Statistics seminar (via Zoom). Purdue University, Indiana, U.S.A.
  - Statistics and Bioinformatics Research Center (SBRC) seminar (via Zoom). Islamic University of Indonesia (UII), Yogyakarta, Indonesia.
  - Actuarial seminar (via Zoom). Department of Mathematical Sciences, University of Wisconsin-Milwaukee, Wisconsin, U.S.A.
  - Actuarial Science seminar (via Adobe Connect). Shahid Beheshti University, Tehran, Iran.
- 2022 Summer meeting of the Canadian Mathematical Society (via Zoom). Memorial University, St. John's, Newfoundland and Labrador, Canada.
  - Colloquium (via Zoom). Department of Mathematics, Toronto Metropolitan University, Ontario, Canada.
- 2023 Session on Frontiers of Statistical Research on Actuarial Science and Risk Management at the 10th International Purdue Statistics Symposium on Demystifying Data Science via Statistics: Theory and Applications. Purdue University, Indiana, U.S.A.
  - Session on Developments in the Measurement of Fairness: Applications to Economics and Health at the Joint Statistical Meetings (JSM). Toronto, Ontario, Canada.
- 2024 Inequality Measures and Econometric Modelling 39<sup>th</sup> annual meeting of the Canadian Econometric Study Group (CESG). Toronto, Ontario, Canada.

# Service to profession

# FUNDING REVIEWER

- AXA / Fonds AXA pour la Recherche, France 2018–2019
- Banff International Research Station (BIRS) Workshop Program, Canada 2021
- City University of New York (CUNY) Research Awards Program, U.S.A. 1999 2001
- Czech Science Foundation (GAČR), Czech Republic 2012 2014
- Fonds de recherche du Québec Société et culture (FRQSC), Canada 2012

- Israel Science Foundation (ISF), Israel 2013
- Mathematics of Information Technology and Complex Systems (MITACS), Canada 2020 2022
- National Science Foundation (NSF), U.S.A. 2010 2012
- National Security Agency (NSA), U.S.A. 2013
- Natural Sciences and Engineering Research Council (NSERC), Canada 2002–2003 2003–2004 2004–2005 2005–2006 2006–2007 2007–2008 2011–2012 2016–2017 2018–2019 2022–2023 2023–2024 2024–2025
- Ohio University Research Council (OURC), U.S.A. 2018
- Royal Society of Edinburgh (RSE) International Exchange Programme, U.K. 2008

# **REVIEWER OF ACADEMIC MATTERS**

## Requested by heads/chairs, deans, (vice-)presidents

- Academic programs
- Master Program in Statistics, Islamic University of Indonesia, 2023
- Distinguished/endowed professorships, headships, senior awards, etc.
   U.S.A., 2011, 2012, 2013
- Promotion and/or tenure – Israel, 2012, 2014, 2022

# PAST EDITORIAL WORK

# - Journal of Probability and Statistics

- Published by Hindawi Publishing Corporation
- Member of the Editorial Board (2008–2016)
- Lead Guest Editor (2009–2010) of the special issue on Actuarial and Financial Risks: Models, Statistical Inference, and Case Studies, co-edited jointly with E. Furman, A. Necir, J. Nešlehová, and M.L. Puri
- Journal of Mathematical Finance (JMF)
  - Published by Scientific Research Publishing Inc
  - Member of the Editorial Advisory Board (2011–2024)
- Journal of Statistics and Management Systems (JSMS)
  - Co-published by Taylor & Francis Group, and TARU Publications
  - Associate Editor (2013–2017; renewed for 2018-2022)
- Silesian Statistical Review (Śląski Przegląd Statystyczny)
  - Journal of the Wrocław branch of the Polish Statistical Association
  - Published by Wrocław University of Economics and Business, Poland
  - Member of the Editorial Board (2016–2023)
- Statistics & Applications (Statistica & Applicazioni)
  - Published by Vita e Pensiero, Milan, İtaly
  - Member of the Scientific Committee (2014–2022)

# **ONGOING EDITORIAL WORK**

- Metron International Journal of Statistics
  - Founded in 1920 by Corrado Gini
  - Co-published by Springer, and the Dipartimento di Scienze Statistiche, Sapienza Università di Roma, Italy
  - Associate Editor (2007–ongoing)
- Journal of Risk and Financial Management (JRFM)
  - Published by Multidisciplinary Digital Publishing Institute (MDPI)
  - Member of the Editorial Board for section "Risk" (2019–ongoing)
- Journal of Statistical Theory and Practice (JSTP)
  - Published by Springer
  - Associate Editor (2010–ongoing)
- Risks

- Published by Multidisciplinary Digital Publishing Institute (MDPI)
- Lead Guest Editor (2018–2019) of the special issue<sup>4</sup> on Risk, Ruin and Survival: Decision Making in Insurance and Finance, co-edited jointly with J. Ren and K. Sendova
- Member of the Editorial Board (2019–ongoing)
  Member of the Evaluation Committee for the 2019 Risks Best Paper Awards
- Member of the Evaluation Committee for the 2020 Risks Best Paper Awards

CONFERENCE/COMPETITION ORGANIZER, CHAIR, JUDGE, DISCUSSANT

My participation at many of these events was possible due to generous support by host institutions, and I gratefully acknowledge this

- 2000 Organizer (jointly with L. Wang) of the 1st international statistics workshop. University of Manitoba, Winnipeg.
- 2001 Organizer (jointly with J. Brewster, J. Fu, and L. Wang) of the 2nd international statistics workshop. University of Manitoba, Winnipeg.
- 2002 Organizer (jointly with R. Helmers and I.W. Mangku) of the workshop on Computer-Intensive Statistics under the auspices of the bi-national scientific cooperation program between Indonesia and the Netherlands. Bandung Institute of Technology (ITB), Bandung, Indonesia,
- 2004 Chair of a session at the international conference on Distribution Theory, Order Statistics and Inference in honor of Barry C. Arnold on the occasion of his 65th birthday. Santander, Spain.
- 2005 Organizer and Chair of the session on Statistical Inference and Empirical Processes in Reliability at the international symposium on Stochastic Models in Reliability, Safety, Security and Logistics (SMRSSL'05) dedicated to the memory of Prof. K. Kordonsky. Shamoon College of Engineering, Beer-Sheva, Israel.
  - Organizer of the workshop on Statistical Inference in Econometrics. Department of Statistics. Faculty of Mathematics and Natural Sciences, Islamic University of Indonesia (UII), Yogyakarta, in cooperation with the Doctoral Program in Economics, Faculty of Economics, Islamic University of Indonesia (UII), Yogyakarta.
- 2007 Organizer of the topic-contributed session on Risk Measures in Actuarial Science at the 2007 Joint Statistical Meetings, Salt Lake City, Utah, U.S.A. Sponsored by sections on Nonparametric Statistics, Risk Analysis, and Business and Economics Statistics of the American Statistical Association.
- 2009 Discussant at the Midwest Finance Association (MFA) 58th annual meeting. Chicago, Illinois, U.S.A.
  - Discussant at the Canadian Economics Association (CEA) 43rd annual conference. University of Toronto, Ontario, Canada.
  - Moderator at the 44th Actuarial Research Conference (ARC). University of Wisconsin in Madison, Wisconsin, U.S.A.
- 2010 Organizer (jointly with Edward Furman) and Chair of the session on Measuring Insurance Risks at the international symposium on Stochastic Models in Reliability Engineering, Life Science and Operations Management (SMRLO'10). Shamoon College of Engineering (SCE), Beer-Sheva, Israel.
  - Organizer and Chair of the Canadian Experimental and Behavioural Economics Research Group (CEBERG) session on Expected Utility: Mathematics and Philosophy at the Canadian Economics Association (CEA) 44th annual conference. Quebec City, Quebec, Canada.
  - Chair of several sessions at the 61st annual conference of the New Zealand Statistical Association held in conjunction with the Statistical Methodologies Symposium celebrating the work of Professor Chin-Diew Lai. Massey University, Palmerston North, New Zealand.
  - Member of the Organizing Committee of Hydrology, Hydraulics and Water Resources in an Uncertain Environment (Water 2010), 10<sup>th</sup> international symposium on Stochastic Hydraulics (ISSH-2010), and 5<sup>th</sup> international conference on Water Resources and Environment Research (ICWRER-2010). Quebec City, Quebec, Canada.
  - Organizer (jointly with A. Necir) and Chair of the session on Risk Measures for Extreme Events at the international meeting on Hydrology, Hydraulics and Water Resources in an Uncertain Environment (Water 2010), 10<sup>th</sup> international symposium on Stochastic Hydraulics (ISSH-2010), and 5<sup>th</sup> international conference on Water Resources and Environment Research (ICWRER-2010). Quebec City, Quebec, Canada.
- 2011 Discussant of several papers at the Canadian Economics Association (CEA) 45th annual conference. University of Ottawa, Ontario, Canada.
  - Organizer (with Francesca Greselin) and Chair of the session on New Trends in Measuring Inequality at the Canadian Economics Association (CEA) 45th annual conference. University of Ottawa, Ontario, Canada.
  - Member of the Advisory Board of the international conference on Applied Mathematical Sciences (ICAPMS-2011). Gujarat University, Ahmedabad, India.

<sup>&</sup>lt;sup>4</sup>This special issue is published as an open-access book (212 pages) by the Multidisciplinary Digital Publishing Institute (MDPI), Basel, Switzerland; ISBN 978-3-03928-516-7 (pbk); ISBN 978-3-03928-517-4 (pdf).

- 2012 Chair of a session at the Barcelona international conference on Advances in Statistics (BAS2012). CosmoCaixa Barcelona, Catalonia, Spain.
  - Member of the International Advisory Committee of the international conference on Advances in Interdisciplinary Statistics and Combinatorics. University of North Carolina at Greensboro, North Carolina, U.S.A.
  - Organizer and Chair of two academic sessions on Statistical Modeling and Inference in Economics and Insurance at the international conference on Advances in Interdisciplinary Statistics and Combinatorics. University of North Carolina at Greensboro, North Carolina, U.S.A.
- 2014 Member of the Scientific Program Committee of the Flint international conference on Flint: One City-One Hundred Years Under Variability. Kettering University, Flint, Michigan, U.S.A.
  - Member of the International Advisory Committee of the international conference on Advances in Interdisciplinary Statistics and Combinatorics. University of North Carolina at Greensboro, North Carolina, U.S.A.
  - Organizer and Chair of the session on Risk Analytics at the international conference on Advances in Interdisciplinary Statistics and Combinatorics. University of North Carolina at Greensboro, North Carolina, U.S.A.
- 2015 Member of the Judging Panel (Science of Information theme), Western Interdisciplinary Showcase, Western University, Canada
- 2018 Organizer (jointly with F. Greselin) of the invited session on Tinkering with Gini: Adaptations of the Old Idea to Present-day Realities at the 11th international conference of the European Research Consortium for Informatics and Mathematics (ERCIM) working group on Computational and Methodological Statistics (CMStatistics). University of Pisa, Italy.
- 2019 Member of the Scientific Program Committee of the workshop on Frontier Areas in Financial Analytics at the Centre for Quantitative Analysis and Modelling (Fields-COAM). Fields Institute, Toronto, Ontario, Canada.
  - Organizer (jointly with J. Ren) of the workshop on Financial Analytics for Property and Casualty Insurance within the interdisciplinary thematic program on Frontier Areas in Financial Analytics at the Centre for Quantitative Analysis and Modelling (Fields-CQAM). Fields Institute, Toronto, Ontario, Canada.
  - Member of the Scientific Program Committee of the international conference on Statistical Distributions and Applications (ICOSDA 2019). Eberhard Conference Center, Grand Rapids, Michigan, U.S.A.
  - Organizer of the topic-invited session on Risk Measures: Theory, Inference, and Applications at the international conference on Statistical Distributions and Applications (ICOSDA 2019). Eberhard Conference Center, Grand Rapids, Michigan, U.S.A.
  - Organizer (jointly with D. Escobar) of the invited session on Risk Measures, Inference, and Applications at the 12th international conference of the European Research Consortium for Informatics and Mathematics (ERCIM) working group on Computational and Methodological Statistics (CMStatistics). University of London, U.K.
- 2020 Co-organizer (jointly with K. Goda, S. Li, J. Ren, and K. Sendova) of the 6th annual Workshop on Insurance Mathematics (WIM), Western University, London, Ontario, Canada.
  - Chair of the plenary session on Inferential Techniques in Inequality Measurement at the international conference on Distributions and Inequality Measures in Economics (DIME 2020). University of Milano-Bicocca, Italy.
- 2021 Member of the Scientific Committee of the 1st International Conference on Mathematics and Applications (ICMA'2021), University of Blida 1, Blida, Algeria.
- 2022 Member of the Judging Panel (Junior Design and Mini Design categories), Western Engineering Competition (WEC), Western University, Canada
- 2023 Member of the Judging Panel (Innovative Design category), Western Engineering Competition (WEC), Western University, Canada
- 2025 Member of the Scientific Committee, the 60th Actuarial Research Conference (ARC 2025), York University, Toronto, Canada

# **Teaching: individual supervision**

# HIGH SCHOOL STUDENTS

- 2023 2024 Sheng Chang Li

  - 11<sup>th</sup> grade TOPS<sup>5</sup> student.
     Project "Analyzing, Quantifying, and Simulating Economic Inequality: Lorenz, Gini, and Other Inequality Measures."
  - Marc Garneau Collegiate Institute, Toronto, Ontario, Canada.
- 2024 2025 Sheng Chang Li

<sup>&</sup>lt;sup>5</sup>TOPS – Talented Offerings for Programs in the Sciences at Marc Garneau Collegiate Institute.

- 12<sup>th</sup> grade TOPS student.
- Project "Inequality, Disaster Vulnerability, and Risk Reduction: Analyses of Simulated and Real Data."
- Marc Garneau Collegiate Institute, Toronto, Ontario, Canada.

# **UNDERGRADUATE STUDENTS**

- 2006 2007 Anna Dinaburg
  - 4<sup>th</sup> year final project "Evaluating Statistical Properties of Overlapping Measures."
  - Supervision at Ben-Gurion University of the Negev, Beer-Sheva, Israel.
  - Joint supervision with Edna Schechtman (Ben-Gurion University of the Negev).
  - In 2007 Anna started her employment within the Israel Defence Forces.
- 2006 2007 Elad Moshe
  - 4<sup>th</sup> year final project "Evaluating Statistical Properties of Overlapping Measures."
  - Supervision at Ben-Gurion University of the Negev, Beer-Sheva, Israel.
  - Joint supervision with Edna Schechtman (Ben-Gurion University of the Negev).
  - In 2007 Elad started his employment within the Israel Defence Forces.
- 2015 2016 Xiao Hang (Helen) Dong
  - Scholar's Electives Program (2200E).
  - Final project "Making Optimal Decisions under Uncertainty: Is the Current Outcome Better than the Unknown One?"
  - Supervision at Western University, London, Ontario, Canada.
- 2017 (May-August) Luke Helpard
  - Natural Sciences and Engineering Research Council Undergraduate Student Research Award (NSERC USRA).
  - Project "Statistical Insights into Military Recruitment, Performance, and Retention."
  - Supervision at Western University, London, Ontario, Canada.
- 2020 (May-August) Ningsong Shen
  - Natural Sciences and Engineering Research Council Undergraduate Student Research Award (NSERC USRA).
  - Project "Risks, Classification, and Pattern Recognition."
  - Supervision at Western University, London, Ontario, Canada.
- 2021 (May-August) Sophie Wu
  - Western Undergraduate Student Research Internship (USRI).
  - Project "Artificial Intelligence and Microcredit: Algorithmic Improvement of Financial Systems in Industrialising Economies."
  - Supervision at Western University, London, Ontario, Canada.
- 2021 (May-August) Noah Laskey
  - Undergraduate Research Assistantship.
  - Project "Framing Effects, Their Analyses, and Making Decisions in STEM Education."
  - Supervision at King's University College, Western University, London, Ontario, Canada.
  - Joint supervision with Lori Murray (King's University College, Western University).
- 2021 2022 Isabella Lu
  - Scholar's Electives Program.
  - Final project "Detecting Systematic Anomalies: Examples, Techniques, and Decision Making."
    Supervision at Western University, London, Ontario, Canada.
- 2022 (January-March) Jason Li
  - Undergraduate Research Assistantship within the program "Undergraduate Research Experience."
  - Project "Anomaly Detection in Engineering, Finance, and Related Fields: A Computer Science Student's Perspective."
  - Supervision at Western University, London, Ontario, Canada.
- 2022 (January–March) Meghan Kings

  - Undergraduate Research Assistantship within the program "Undergraduate Research Experience."
    Project "Anomaly Detection in Engineering, Finance, and Related Fields: An Environmental Engineering Student's Perspective."
  - Supervision at Western University, London, Ontario, Canada.
- 2024 (May-August) Johann Abraham
  - Natural Sciences and Engineering Research Council Undergraduate Student Research Award (NSERC USRA).
  - Project "Detecting Systematic Anomalies That Do Not Change the Regime of Genuine Signals."
  - Supervision at Western University, London, Ontario, Canada.
- 2024 2025 Johann Abraham
  - Undergraduate Research Assistantship within the program "Undergraduate Research Experience."
  - Project "Detecting Noise and Structural Breaks in Control Systems."
  - Supervision at Western University, London, Ontario, Canada.

# MASTER'S STUDENTS

- 2001 2003 Mihaela Paun
  - M.Sc. thesis "Indices of Economic Inequality and their Empirical Estimation."
  - Supervision at Western University, London, Ontario, Canada.
  - In 2003 Mihaela started her Ph.D. studies at Louisiana Tech University (further details under "doctoral students").
- 2002 2003 Radu Constantinescu
  - M.Sc. project "Empirical Estimation of Risk Measures in Actuarial Science."
  - Supervision at Western University, London, Ontario, Canada.
  - Joint supervision with Bruce L. Jones (Western University).
  - In 2003 Radu started his employment at the insurance company Allianz Group.
- 2005 2007 Amit Shelef
  - M.Sc. thesis "Constructing Statistical Tests for Comparing Absolute Concentration Curves."
  - Supervision at Ben-Gurion University of the Negev, Beer-Sheva, Israel.
  - Joint supervision with Edna Schechtman (Ben-Gurion University of the Negev).
  - In 2007 Amit started her Ph.D. studies at Ben-Gurion University of the Negev, Beer-Sheva, Israel.
- 2008 2009 Feng (Dio) Qiu

  - M.Sc. project "Weighted Premiums and CAPM."
    Supervision at Western University, London, Ontario, Canada.
  - Joint supervision with Bruce L. Jones (Western University).
- 2008 2009 Ye (Raymond) Zhang
  - M.Sc. project "Conditional Tail Expectation, its Variations and Applications."
  - Supervision at Western University, London, Ontario, Canada.
  - Joint supervision with Jiandong Ren (Western University).
  - In 2009 Raymond started his Ph.D. studies at Western University (further details under "doctoral students").
- 2011 2012 Wenwei (Rio) Su
  - M.Sc. project "Classification Methods, Algorithms, and their Comparison."
  - Supervision at Western University, London, Ontario, Canada.
  - Joint supervision with Zinovi Krougly (Western University).
- 2012 2013 Long Wen
  - M.Sc. project "The Determinants of Derivative Usage and Firm Value: The Case of Chinese Non-financial Companies."
  - Supervision at Western University, London, Ontario, Canada.
  - In 2013 Long started his NSERC supported Research Assistant position at the Centre for Optimization and Decision Science, Thompson Rivers University, British Columbia.
  - In 2014 Long started his Ph.D. studies at the University of Nottingham, Ningbo Campus, China.
- 2012 2013 Jiang Wu
  - M.Sc. project "The Core-Periphery Model and the Increasing Returns Framework."
  - Supervision at Western University, London, Ontario, Canada.
  - In 2013 Jiang started his Ph.D. studies at Western University (further details under "doctoral students").
- 2013 2014 Boris Garbuzov
  - M.Sc. project "A Comparative Study of Clinical and Economic Efficiencies: A Glimpse of the Use of Anti-Myorelaxant Sugammadex in Canada, Russia, and Ukraine."
  - Supervision at Western University, London, Ontario, Canada.
  - In 2014 Boris started his Ph.D. studies at the University of Toronto.
- 2013 2014 Yuxuan (Celia) Wu
  - M.Sc. project "Enterprise Risk Management: Recent Techniques and Case Studies."
  - Supervision at Western University, London, Ontario, Canada.
- 2013 2014 Yancheng Cai
  - M.Sc. project "Co-monotonicity and Its Role in Insurance."
  - Supervision at Western University, London, Ontario, Canada.
  - Joint supervision with Jiandong Ren (Western University).
- 2014 2015 Shiqing Chen
  - M.Sc. project "Mortality Modelling and Life Insurance: Frailty Models in Heterogeneous Populations with a Case Study."
  - Supervision at Western University, London, Ontario, Canada.
  - In 2016 Shiqing started her employment at Canada Life Insurance Company, London, Ontario.
- 2014 2015 Kiran Raj Panta
  - M.Sc. project "Survival Analysis Methods and Their Uses in Life and Non-Life Insurance: an Exploration of Their Pros and Cons with Illustrative Examples."

- Supervision at Western University, London, Ontario, Canada.
- 2015 2016 Ren (Frank) Fu
  - M.Sc. project "Customized Bundling Strategies for Information Goods: Classification, Examples, and Modelling.
  - Supervision at Western University, London, Ontario, Canada.
  - In 2016 Frank started his employment at PureFacts Financial Solutions, Toronto, Ontario, Canada.
- 2016 2017 Lingzhi Chen
  - M.Sc. project "Measuring and Comparing Student Performance: A New Technique for Assessing Associations.'
  - Supervision at Western University, London, Ontario, Canada.
  - In 2017 Lingzhi started her Ph.D. studies at Western University (further details under "doctoral students").
- 2016 2017 Ang Li
  - M.Sc. project "Pricing Insurance Products Under the Uncertainty of Costs and Demand."
  - Supervision at Western University, London, Ontario, Canada.
  - Joint supervision with Jiandong Ren (Western University).
  - In 2017 Ang started his Ph.D. studies at Western University (further details under "doctoral students").
- 2017 2018 Hao Liu
  - M.Sc. project "Stochastic Volatility Modeling and Option Pricing in a LIBOR Market Model."
  - Supervision at Western University, London, Ontario, Canada.
- 2017 2018 Abbas Dadashi
  - M.Sc. project "Dynamic Market-risk Measurement of Multi-stock Portfolios Using Multivariate Time Series Analysis.
  - Supervision at Western University, London, Ontario, Canada.
- 2017 2018 Farzaneh Rahmdel
  - M.Sc. project "Exposure at Default Model in Credit Risk."
    Supervision at Western University, London, Ontario, Canada.
- 2017 2018 Fatemeh Ferdosian
  - M.Sc. project "Measuring Risk in Chemical Processes: Factors, Methods, and Decision Making."
  - Supervision at Western University, London, Ontario, Canada.
  - In 2018 Fatemeh started her employment as a Research Scientist at DuPont Canada, Kingston, Ontario, Canada.
- 2018 2019 Yulin Wang
  - M.Sc. project "Momentum Trading Strategy and Time Series Prediction of Stock Market."
  - Supervision at Western University, London, Ontario, Canada.
- 2018 2019 Utsa Karan
  - M.Sc. project "InsurTech: Bridging Natural and Machine Intelligence for Calculating Insurance Premiums."
  - Supervision at Western University, London, Ontario, Canada.
  - In 2019 Utsa started her employment as a Manager of Data Analytics at TVOntario (TVO), Toronto, Ontario, Canada.
- 2019 2020 Yue Gu
  - M.Sc. project "Assessing Financial Risks Associated with Health Insurance and Actual Health-related Costs.
  - Supervision at Western University, London, Ontario, Canada.
- 2019 2020 Reza Mosayebi Kulluje
  - M.Sc. project "Empirical Assessment of GARCH and Deep Learning Option Pricing Methods."
  - Supervision at Western University, London, Ontario, Canada.
- 2019 2020 Dongfang Zhao
  - M.Sc. project "A Statistical Analysis of the 2020 U.S. Stock Market Fall Using Historical Financial Crisis Period Data and Time Series Techniques."
  - Supervision at Western University, London, Ontario, Canada.
- 2020 2021 Mohsen Mollahajiaghaei
  - M.Sc. project "Collective Behaviour of Financial Markets."
  - Supervision at Western University, London, Ontario, Canada.
  - Immediately after the defence, Mohsen joined Huron University College at Western University as an Assistant Professor of Mathematics.
- 2020 2021 Neal Jackett
  - M.Sc. project "Examining the Utility of Tree-Based Regression Techniques on House Price Estimation."
  - Supervision at Western University, London, Ontario, Canada.
  - Immediately after the defence, Neal joined the University of Lethbridge, Alberta, as an instructor in the Department of Mathematics and Computer Science.

- 2020 2021 Jingshi Luo
  - M.Sc. thesis "Credit Risk Measurement and Application Based on BP Neural Networks."
  - Supervision at Western University, London, Ontario, Canada.
  - Joint supervision with Xingfu Zou (Western University).
- 2021 2022 Sara Ansari
  - M.Sc. project "Anomaly Detection in Financial Markets."
    - Supervision at Western University, London, Ontario, Canada.
- 2021 2022 Xuefeng Wang
  - M.Sc. project "Applications of Natural Language Processing (NLP) in Insurance."
  - Supervision at Western University, London, Ontario, Canada.
  - After graduation, Xuefeng joined the Department of Financial Risk Analytics and Reporting, Canada Life, Toronto, Ontario, Canada.
- 2022 2023 Zhiwen Dong
  - M.Sc. project "A Monte Carlo Based Method for Estimating the Present Value of Annuities with Interest Rates Driven by Stochastic Processes."
  - Supervision at Western University, London, Ontario, Canada.
- 2022 2023 Karzan Saeedi
  - M.Sc. project "The Euler-based Capital Allocation Rule and its Compatibility with RORAC."
  - Supervision at Western University, London, Ontario, Canada.
- 2022 2023 Azar Eftekhari Targhi
  - M.Sc. project "An Application and Assessment of Multivariate GARCH Estimation of CoVaR for Systemic Risk Measurement."
  - Supervision at Western University, London, Ontario, Canada.
- 2022 2024 Saman Ebrahimpour
  - M.Sc. project "Statistical Inference for Actuarial Risk Measures and Capital Allocations."
    Supervision at Western University, London, Ontario, Canada.

  - Saman started as a PhD student but after a stint at Canada Life as an intern, he got a full-time job offer. Western University converted Saman's PhD achievements (passed PhD comprehensive exam, required courses, etc.) into his MSc degree. After graduation, Saman joined the Risk Research Team in the Chief Actuary Department, Canada Life, London, Ontario, Canada.
- 2022 2005 Rishigesh Patgunarajah
  - M.Sc. thesis "Tail Sets and Level Curves of Bivariate Distributions: Geometry and Estimation."
  - Supervision at York University, Toronto, Ontario, Canada.
  - Joint supervision with Edward Furman (York University).
- 2023 2024 Aleksandr Chen
  - M.Sc. project "Operational Effectiveness Internship at the IESO."
  - Supervision at Western University, London, Ontario, Canada.
- 2023 2024 Neslihan Serra Deşdemir
  - M.Sc. project "Financial Modelling and Risk Allocations with Multidimensional Values at Risk."
  - Supervision at Western University, London, Ontario, Canada.
  - Serra started as a PhD student but after a stint at Oliver Wyman (Marsh McLennan Group) as an intern, she got a full-time job offer. Western University converted Serra's PhD achievements (passed PhD comprehensive exam, required courses, etc.) into her MSc degree. After graduation, Serra joined Oliver Wyman (Marsh McLennan Group), Toronto, Ontario, Canada.
  - Serra's MSc study was supported by the NSERC Alliance-Mitacs Accelerate grant entitled "New Order of Risk Management (NORM): Theory and Applications in the Era of Systemic Risk."
- 2024 2025 Yiwei Guo M.Sc. project
- - Supervision at Western University, London, Ontario, Canada.
- 2024 2025 Hailong Jiang
- M.Sc. project
  - Supervision at Western University, London, Ontario, Canada.
- 2024 2025 Peize Li
  - M.Sc. project
    - Supervision at Western University, London, Ontario, Canada.
- 2024 2025 Yiming Li M.Sc. project
  - - Supervision at Western University, London, Ontario, Canada.
- 2024 2025 Marina Palaisti
  - M.Sc. project
  - Supervision at Western University, London, Ontario, Canada.

- 2025 2026 Xinyu Wen
  - M.Sc. project
    - Supervision at Western University, London, Ontario, Canada.

# **DOCTORAL STUDENTS**

- 2003 2006 Mihaela Paun
  - Ph.D. thesis "Measuring Inequality: Statistical Inference with Applications."
  - Supervision at Louisiana Tech University, Ruston, Louisiana, U.S.A.
  - Joint supervision with Raja Nassar (Louisiana Tech University).
  - In 2006 Mihaela started her employment as an Assistant Professor at Louisiana Tech University, U.S.A.
  - In 2017 Mihaela became Full Professor of Applied Statistics in the Faculty of Administration and Business at the University of Bucharest, Romania, with habilitation in Cybernetics and Statistics at the Economic Cybernetics and Statistics Doctoral School of the Bucharest University of Economic Studies, Bucharest, Romania.
- 2004 2008 Nao Mimoto
  - Ph.D. thesis "Statistical Inference for Densities and Related Indices."
  - Supervision at Western University, London, Ontario, Canada.
  - Joint supervision with Lajos Horváth (University of Utah, Salt Lake City).
  - In 2008 Nao joined Department of Statistics and Probability at Michigan State University, East Lansing, as a Visiting Assistant Professor.
  - In 2018, Nao became a tenured Associate Professor at the University of Akron, Ohio, U.S.A.
- 2009 2014 Ye (Raymond) Zhang
  - Ph.D. thesis "Decision Theory Based Models in Insurance and Beyond."
  - Supervision at Western University, London, Ontario, Canada.
  - Joint supervision with Jiandong Ren (Western University).
  - In 2014 Raymond joined the Department of Statistics at Miami University, Oxford, Ohio, as a Visiting Assistant Professor, and in 2015 joined Arizona State University (ASU), Tempe, U.S.A. In 2022, Raymond became the recipient of the ASU Charles Wexler Teaching Award.
- 2010 2013 Martín Egozcue
  - Ph.D. thesis "Essays on Behavioral Decision Making."
  - Supervision at the University of the Republic, Montevideo, Uruguay.
  - Joint supervision with Jorge Ponce (University of the Republic and the Central Bank of Uruguay).
  - Martin works as Financial Manager at Norte Construcciones S.A., Punta del Este, Uruguay, and also teaches at various universities in Uruguay.
- 2011 2015 Danang Teguh Qoyyimi
  - Ph.D. thesis "A Novel Method for Assessing Co-Monotonicity: an Interplay between Mathematics and Statistics with Applications."
  - Supervision at Western University, London, Ontario, Canada.
  - Danang's PhD study was supported by the Directorate General of Human Resources for Science, Technology, and Higher Education of Indonesia.
  - In 2016, Danang resumed his permanent employment at Gadjah Mada University (UGM), Yogyakarta, Indonesia, where he had been employed since 2008.
- 2013 2017 Jiang Wu
  - Ph.D. thesis "Statistical Modelling, Optimal Strategies and Decisions in Two-Period Economies."
  - Supervision at Western University, London, Ontario, Canada.
  - Immediately after the defence, Jiang joined the Arizona State University's School of Sustainability as a Visiting Scholar, and afterward resumed his tenured employment (promoted to Associate Professor in 2019) at the Central University of Finance and Economics (CUFE), Beijing, China.
- 2017 2021 Lingzhi Chen
  - Ph.D. thesis "Making Sense of Noisy Data: Theory and Applications."
  - Supervision at Western University, London, Ontario, Canada.
  - Immediately after the defence, Lingzhi joined the Canadian Imperial Bank of Commerce (CIBC) as an Associate in the Capital Market Risk Management department. In 2022, Lingzhi was promoted to Senior Quantitative Analyst.
- 2017 2021 Ang Li
  - Ph.D. thesis "Compound Sums, Their Distributions, and Actuarial Pricing."
  - Supervision at Western University, London, Ontario, Canada.
  - Joint supervision with Jiandong Ren (Western University).
- 2018 2022 Ning Sun
  - Ph.D. thesis "Copulas, Maximal Dependence, and Anomaly Detection in Bi-variate Time Series."
  - Supervision at Western University, London, Ontario, Canada.

# 2018 – 2024 Fabio Piacenza

- Ph.D. thesis "A Holistic Approach to Operational Risk: Issues, Solutions, and Decision Making."
- Supervision at the University of Milano-Bicocca, Milan, Italy.
- Joint supervision with Francesca Greselin (University of Milano-Bicocca).
- Fabio studied and completed his Ph.D. thesis at the University of Milano-Bicocca while concurrently working as a Senior Quantitative Analyst in the Group Operational & Reputational Risks department at Uni-Credit S.p.A., Milan, Italy.
- 2021 [ongoing] Peiheng Gao
  - Ph.D. thesis "Anomaly Detection and Model Construction With the Focus on Natural Language Processing" in Consumer Complaint Textual Analysis."
  - Supervision at Western University, London, Ontario, Canada.
- 2022 [ongoing] Rika Fitriani
  - Ph.D. thesis "Developing Inclusive Insurance in Indonesia: From Theoretical Foundations to Data Analyses."
  - Supervision at Western University, London, Ontario, Canada.
  - Rika's PhD study is supported by the Ministry of Education, Culture, Research, and Technology of Indonesia
- 2024 (April-September) Iliess Zahid
  - Ph.D. project "Modelling and Predicting Socioeconomic Factors via Hybridization of Machine Learning Methods.'
  - Supervision at Western University, London, Ontario, Canada.
  - Iliess was a Vising Research Only (VRO) Ph.D. student from the University of Calabria, Rende, Italy.
- 2024 [ongoing] Mengqi (Jack) Wang
  - Ph.D. thesis
  - Supervision at Western University, London, Ontario, Canada.
  - Joint supervision with Edward Furman (York University).
  - Jack's PhD study is supported by the NSERC Alliance–Mitacs Accelerate grant entitled "New Order of Risk Management (NORM): Theory and Applications in the Era of Systemic Risk."
- 2025 [ongoing] Zehui Wu
- Ph.D. thesis
  Supervision at Western University, London, Ontario, Canada.
  - Joint supervision with Edward Furman (York University).
  - Zehui's PhD study is supported by the NSERC Alliance-Mitacs Accelerate grant entitled "New Order of Risk Management (NORM): Theory and Applications in the Era of Systemic Risk."
- 2025 [ongoing] Gujie Fu
  - Ph.D. thesis
  - Supervision at Western University, London, Ontario, Canada.
  - Joint supervision with Grace Y. Yi (Western University).
- 2025 [ongoing] Hailong Jiang
  - Ph.D. thesis
  - Supervision at Western University, London, Ontario, Canada.
- 2025 [ongoing] Yueze Li
  - Ph.D. thesis
  - Supervision at Western University, London, Ontario, Canada.
  - Joint supervision with Jiandong Ren (Western University).

# **POST-DOCTORAL FELLOWS**

- 2008 (May August) Dr. Nao Mimoto

  - Appointment at Western University, London, Ontario, Canada.
    Subsequently, Nao joined the Department of Statistics and Probability at Michigan State University, East Lansing, U.S.A., as a Visiting Assistant Professor.
  - In 2018, Nao became a tenured Associate Professor at the University of Akron, Ohio, U.S.A.
- 2009 (May August) Dr. Amin Hassan Zadeh
  - Appointment at Western University, London, Ontario, Canada.
  - Joint supervision with several colleagues.
  - Subsequently, Amin joined the Department of Statistics at Tarbiat Modares University, Tehran, Iran, as an Assistant Professor. In 2024, Amin became a Professor of Practice at Oregon State University, Corvallis, Oregon, U.S.A.

# RESEARCH ASSOCIATES

2013 – 2014 Dr. Yijuan Ge

- Project "Social Media, Big Data, and Business Management."
- Appointment at Western University, London, Ontario, Canada.
- Yijuan obtained her Ph.D. (Communication and Media Studies) in 2013 at the Graduate School of the Chinese Academy of Social Sciences, Beijing, China.
- In September 2014, Yijuan started her Ph.D. (Education Studies) at the Faculty of Education, Western University.
- 2018 2019 Dr. Jiang Wu
  - Project "Financial Contagion Measures Based on Co-movements."
  - Appointment at Western University, London, Ontario, Canada.
  - In 2019, Jiang was promoted to Associate Professor at the Central University of Finance and Economics (CUFE), Beijing, China.

2020 – 2021 Dr. Chen Yang

- Project "Detecting Risks and Assessing the Strength of Their Co-movements."
- Appointment at Western University, London, Ontario, Canada.
- Chen holds a PhD in Actuarial Science, is an Associate of the Society of Actuaries (ASA), and taught for several years at the Economics and Management School of Wuhan University, Wuhan, Hubei, China.
- In 2022, Chen started his employment as a biostatistician at Icahn School of Medicine at Mount Sinai, New York, NY, U.S.A.

## **INTERNS AT COMPANIES**

- 2018 2020 Sun Life Financial, Toronto, Ontario, under the title "Risk Aggregation Beyond the Normal Limits." – Interns
  - \* Lingzhi Chen, 2018 (September December)
  - \* Zhe Li, 2018 (September December)
  - \* Yang Miao, 2019 (January April)
  - \* Hoora Taher-Nokande, 2019 (May August)
  - \* Shanshan Liu, 2019 (September December)
  - \* Bowei Zhang, 2019 (September December)
  - \* Yuyang Zhang, 2020 (January April)
  - \* Pavle Curcin, 2020 (January April)
  - \* Pavle Curcin, 2020 (May August; renewal)
  - \* Aiko Kulzhabayeva, 2020 (September December)
  - Joint supervision with Edward Furman (York University, Toronto).
  - Supported by a Mitacs Accelerate Award from the Canadian national research organization for Mathematics of Information Technology and Complex Systems (MITACS), in partnership with Sun Life Financial.
- 2019 2020 Unilever Canada, Toronto, Ontario, under the title "Price Elasticities and Promotion Cannibalization Effect on Promotion Activities."
  - Intern
    - \* Lingzhi Chen, 2019 (May September)
    - \* Lingzhi Chen, 2019 (October) 2020 (January; renewal)
    - \* Lingzhi Chen, 2020 (February May; renewal)
  - Supported by a Mitacs Accelerate Award from the Canadian national research organization for Mathematics of Information Technology and Complex Systems (MITACS), in partnership with Unilever Canada.
- 2020 Unilever Canada, Toronto, Ontario, under the title "Pricing Model from Econometric Perspective and Visualizing Promotion Cannibalization Effect on Promotion Activities."
  - Intern
    - \* Lingzhi Chen, 2020 (June September)
  - Supported by a Mitacs Accelerate Award from the Canadian national research organization for Mathematics of Information Technology and Complex Systems (MITACS), in partnership with Unilever Canada.
- 2020 2021 Unilever Canada, Toronto, Ontario, under the title "Demand Estimation in Consumer-Packaged Goods Market Using BLP Method."
  - Intern
    - \* Lingzhi Chen, 2020 (October) 2021 (January)
  - Supported by a joint Mitacs Accelerate Award between the Southern Ontario Smart Computing Innovation Platform (SOSCIP) and the Canadian national research organization for Mathematics of Information Technology and Complex Systems (MITACS), in partnership with Unilever Canada.
- 2021 2022 Sun Life Financial, Toronto, Ontario, under the title "Risk Aggregation Beyond the Normal Limits." (An extension of the 2018-2020 Mitacs Accelerate Award under the same title.)
  - Interns
    - \* Hamed Helali, 2021 (January April)

- \* Pouya Sharifi, 2021 (January April)
- \* Seyed Mostafa Hosseinian, 2021 (May September)
- \* Pouya Sharifi, 2021 (May September; renewal)
- \* Mohamed Hamdouni, 2021 (September December)
- \* Pouya Sharifi, 2021 (September) 2022 (January; renewal)
- Joint supervision with Edward Furman (York University, Toronto).
- Supported by a Mitacs Accelerate Award from the Canadian national research organization for Mathematics of Information Technology and Complex Systems (MITACS), in partnership with Sun Life Financial.
- 2023 Sun Life Canada, Toronto, Ontario, under the title "New Order of Risk Management: Theory and Applications in the Era of Systemic Risk (NORM)."

– Intern

- \* Sara Ansari, 2023 (March June)
- \* Sara Ansari, 2023 (July October; renewal)
- Supported by the NSERC Alliance-MITACS Accelerate grant entitled "New Order of Risk Management: Theory and Applications in the Era of Systemic Risk" from the Natural Sciences and Engineering Research Council (NSERC) of Canada, and the national research organization Mathematics of Information Technology and Complex Systems (MITACS) of Canada, in partnership with Sun Life Canada.

# **Teaching: courses**

The University Students Council Teaching Honour Roll Award of Excellence for 2014–15, Western University

# UNDERGRADUATE COURSES

Massey University, Palmerston North, New Zealand.

- Principles of Statistics (161.100) July–September, 2004.

University of Manitoba, Winnipeg, Manitoba, Canada.

- Basic Statistical Analysis I (5.100) 1999–2000 (A-Term) 1999–2000 (B-Term) 2000–2001 (A-Term)
- Basic Statistical Analysis II (5.200) 2000–2001 (B-Term)
- Introduction to Statistical Inference (5.414) 1999–2000 (A-Term) 2000–2001 (A-Term)
- Mathematical Probability (5.462) 2000–2001 (B-Term)

Western University, London, Ontario, Canada.

- Applied Probability and Statistics for Engineers (SS.2141) 2015–2016 (A-Term) 2016–2017 (A-Term) 2021–2022 (A-Term) 2022–2023 (A-Term) 2024–2025 (A-Term)
- Applied Statistics and Data Analysis for Engineers (SS.2143) 2021–2022 (B-Term) 2022–2023 (B-Term) 2023–2024 (B-Term) 2024–2025 (B-Term)
- Intermediate Probability (SS.3657) 2020–2021 (A-Term)
- Introduction to Statistics (SS.1024) 2017–2018 (A-Term) 2020–2021 (A-Term)
- Loss Models II (previously AS.442; currently AS.4824) 2007–2008 (B-Term) 2010–2011 (A-Term)
- Methods of Statistical Analysis (SS.222) 2001–2002 (A-Term) 2001–2002 (B-Term) 2002–2003 (A-Term) 2002–2003 (B-Term) 2003–2004 (A-Term) 2003–2004 (B-Term)
- Statistical Concepts (SS.1023) 2021–2022 (B-Term) 2022–2023 (A-Term)
- Statistical Methods (SS.137) 2004–2005 (A-Term) 2005–2006 (A-Term)

- Statistics for Health (SS.2037) 2021–2022 (B-Term) 2022–2023 (A-Term)
- Statistics for Sciences (SS.2122) 2009–2010 (A-Term) 2009–2010 (B-Term)
- Stochastic Processes (SS.452) 2001–2002 (B-Term) 2002–2003 (B-Term) 2003–2004 (B-Term) 2004–2005 (B-Term) 2005–2006 (B-Term)
- Time Series (previously SS.361; currently SS.4861)
  2004–2005 (A-Term) 2014–2015 (B-Term) 2015–2016 (B-Term)
  2016–2017 (B-Term) 2017–2018 (B-Term) 2018–2019 (B-Term)
  2019–2020 (B-Term) 2020–2021 (B-Term) 2023–2024 (B-Term)
  2024–2025 (B-Term)

#### **GRADUATE COURSES**

University of Manitoba, Winnipeg, Manitoba, Canada.

- Advanced Theory of Probability (5.706) 2000–2001 (B-Term)
- Advanced Statistical Inference (5.708) 1999–2000 (B-Term)
- Seminar in Statistics II (5.723) 1999–2000 (B-Term)

Western University, London, Ontario, Canada.

- Advanced Stochastic Modelling (SS.725) 2001–2002 (B-Term).
- Asymptotic Methods in Statistical and Actuarial Sciences (previously SS.709; currently SS.9909) 2002–2003 (B-Term) 2003–2004 (B-Term) 2004–2005 (B-Term) 2005–2006 (B-Term) 2007–2008 (A-Term) 2008–2009 (A-Term) 2010–2011 (B-Term)
- Decision Making and Object Oriented Programming (AS.9903) 2012–2013 (B-Term)
- Decision Theory in Insurance and Finance (AS.9956) 2011–2012 (A-Term) 2019–2020 (B-Term)
- Enterprise Risk Management (AS.9056) 2013–2014 (A-Term)
- Loss Models I (AS.9424) 2011–2012 (B-Term)
- Probability and Statistics I (AS.9857) 2010–2011 (A-Term).
- Risk Measures and Dependence (AS.9912)
   2008–2009 (A-Term) 2009–2010 (A-Term) 2010–2011 (B-Term)
   2011–2012 (B-Term) 2012–2013 (B-Term) 2013–2014 (B-Term)
   2014–2015 (A-Term) 2016–2017 (B-Term)
- Probabilistic Machine Learning (SS.9697) 2019–2019 (L-Term) 2022–2023 (A-Term)
- Statistical Methods for Finance and Insurance (FM.9512) 2017–2018 (B-Term) 2018–2019 (A-Term)
- Stochastic Processes (SS.537) 2001–2002 (B-Term) 2002–2003 (B-Term) 2003–2004 (B-Term) 2004–2005 (B-Term) 2005–2006 (B-Term)
- Stochastic Processes with Applications in Finance and Actuarial Science (previously AS.9990; currently FM.9590)
   2012–2013 (A-Term) 2013–2014 (A-Term) 2014–2015 (A-Term)
   2015–2016 (A-Term) 2019–2020 (A-Term)

- Time Series (SS.9861)		
2014–2015 (B-Term)	2015–2016 (B-Term)	2016–2017 (B-Term)
2017–2018 (B-Term)	2018–2019 (B-Term)	2019–2020 (B-Term)
2020–2021 (B-Term)	2023–2024 (B-Term)	2024–2025 (B-Term)

- Theory of Statistical Inference (previously SS.530; currently SS.9030) 2005–2006 (A-Term) 2007–2008 (B-Term) 2008–2009 (B-Term) 2011–2012 (B-Term) 2018–2019 (B-Term) 2019–2020 (B-Term)
- Weather Derivatives: Statistical and Financial Foundations (AS.9958) 2012–2013 (A-Term)

# **Thesis examination committees**

#### MASTER'S (SCIENCE, ARTS) THESES

- 2010 Examination Chair. Candidate Y. Wang. Supervisor H.S. Sendov. Defence at Western University, London, Ontario, Canada.
- 2014 Examination Chair. Candidate A. Morin. Supervisor D. Woolford. Defence at Western University, London, Ontario, Canada.
- 2018 University Examiner. Candidate M.E. Johnston. Supervisor Z. Zhang. Defence at Western University, London, Ontario, Canada.
- 2019 Program Examiner. Candidate J. Qiu. Supervisor J. Ren. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate Y. Zang. Supervisor S.B. Provost. Defence at Western University, London, Ontario, Canada.
- 2020 Program Examiner. Candidate F. Dikic. Supervisor S. Li. Defence at Western University, London, Ontario, Canada.
- 2021 Program Examiner. Candidate X. Ye. Supervisors M. Escobar-Anel and L. Stentoft. Defence at Western University, London, Ontario, Canada.
- 2024 Program Examiner. Candidate X. Zhang. Supervisors R. Kulperger, S.R. Valluri, and H. Yu. Defence at Western University, London, Ontario, Canada.

# PH.D. MID-STUDY PROPOSALS

- 2013 Examination Chair. Candidate Z. Li. Supervisor K.P. Sendova. Defence at Western University, London, Ontario, Canada.
  - Program Examiner. Candidate S. Shan. Supervisor H.S. Sendov. Defence at Western University, London, Ontario, Canada.
- 2014 Program Examiner. Candidate Y.N. Zhang. Supervisor B.L. Jones. Defence at Western University, London, Ontario, Canada.
- 2016 Program Examiner. Candidate J.S.J. Kang. Supervisors S.B. Provost and J. Ren. Defence at Western University, London, Ontario, Canada.
  - Program Examiner. Candidate T. Jiang. Supervisor H.S. Sendov. Defence at Western University, London, Ontario, Canada.
- 2017 Examination Chair. Candidate D. Becker. Supervisors J. Braun, C. Dean, and D. Woolford. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate W. Avusuglo. Supervisors M. Reesor and A. Metzler. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate S. Soleymani. Supervisor A.I. McLeod. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate R. Zhang. Supervisor K.P. Sendova. Defence at Western University, London, Ontario, Canada.
- 2018 Examination Chair. Candidate W. Jiang. Supervisors J. Ren and H.P. Hong. Defence at Western University, London, Ontario, Canada.
  - University Examiner. Candidate A. Uvarov. Supervisor G-Y. Zou. Defence at Western University, London, Ontario, Canada.
- 2020 Program Examiner. Candidate J. Chen. Supervisor M. Davison. Defence at Western University, London, Ontario, Canada.
- 2021 University Examiner. Candidate C-C. Yu. Supervisors Y-H. Choi and G-Y. Zou. Defence at Western University, London, Ontario, Canada.
  - Program Examiner. Candidate J. Xiao. Supervisor H.S. Sendov. Defence at Western University, London, Ontario, Canada.

- 2023 Examination Chair. Candidate Y. Chen. Supervisor R.S. Mamon. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate D. Gao. Supervisor J. Ren. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate P. Faroughi. Supervisors S. Li and J. Ren. Defence at Western University, London, Ontario, Canada.
- 2024 Program Examiner. Candidate X. Ye. Supervisors M. Escobar-Anel and L. Stentoft. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate D. Xu. Supervisor S. Li. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate S. Zandi. Supervisors C. Bravo Roman and M. Óskarsdóttir. Defence at Western University, London, Ontario, Canada.

#### PH.D. THESES

- 1999 Program Examiner. Candidate M. Orasch. Supervisor M. Csörgő. Defence at Carleton University, Ottawa, Ontario, Canada.
- 2000 Examination Chair. Candidate M. Liang. Supervisor N.S. Mendelsohn. Defence at the University of Manitoba, Winnipeg, Manitoba, Canada.
- 2001 External Examiner. Candidate W.I. Mangku. Supervisor R. Helmers. Defence at the University of Amsterdam, The Netherlands.
- 2003 Program Examiner. Candidate H. Khan. Supervisors M.S. Haq and S.B. Provost. Defence at Western University, London, Ontario, Canada.
  - University Examiner. Candidate A. Paun. Supervisor S. Yu. Defence at Western University, London, Ontario, Canada.
- 2005 Program Examiner. Candidate D. Sanjel. Supervisors I.B. MacNeill and S.B. Provost. Defence at Western University, London, Ontario, Canada.
  - External Examiner. Candidate Y. Lu. Supervisor J. Garrido. Defence at Concordia University, Montreal, Quebec, Canada.
  - University Examiner. Candidate M. Voia. Supervisor C. Robinson. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate F. Zhang. Supervisor R.J. Puddephatt. Defence at Western University, London, Ontario, Canada.
- 2006 Examination Chair. Candidate L.E. Millon. Supervisors W. Wan and J. Hutter. Defence at Western University, London, Ontario, Canada.
- 2007 Examination Chair. Candidate I.S. Young. Supervisor M.A. Kerr. Defence at Western University, London, Ontario, Canada.
  - External Examiner. Candidate J. Cho. Supervisor B. Levit. Defence at Queen's University, Kingston, Ontario, Canada.
  - Examination Chair. Candidate B. Chen. Supervisor Y. Huang. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate D. Haile. Supervisor H. Rasmussen. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate J. Jagadeesan. Supervisor R. Patel. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate A. Shakoori. Supervisors R.M. Corless and D. Aruliah. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate M. Mendelsohn. Supervisors T.J. Overend and R.J. Petrella. Defence at Western University, London, Ontario, Canada.
- 2008 University Examiner. Candidate C. Bennett. Supervisor J. Knight. Defence at Western University, London, Ontario, Canada.
- 2009 Program Examiner. Candidate M. Jiang. Supervisor S.B. Provost. Defence at Western University, London, Ontario, Canada.
- 2011 Program Examiner. Candidate I. Mabrouk. Supervisor S.B. Provost. Defence at Western University, London, Ontario, Canada.
- 2012 External Examiner/Evaluator. Candidate S.T. Dara. Supervisor M. Ahmad. Defence at the National College of Business Administration and Economics, Lahore, Pakistan.

- 2013 Examination Chair. Candidate Y. Hosein. Supervisor C.E. Dunning. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate Y. Li. Supervisor X. Sun. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate A.M.K. Hafiz. Supervisors R. Tutunea-Fatan and E. Bordatchev. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate N. Ahmad. Supervisor R. Baddour. Defence at Western University, London, Ontario, Canada.
  - External Examiner/Evaluator. Candidate A. Shelef. Supervisors E. Schechtman and S. Yitzhaki. The Kreitman School of Advanced Graduate Studies, Ben-Gurion University of the Negev, Beer-Sheva, Israel.
  - Program Examiner. Candidate S.Z. Sheng. Supervisor S.B. Provost. Defence at Western University, London, Ontario, Canada.
- 2014 Program Examiner. Candidate T. Jin. Supervisor J. Ren. Defence at Western University, London, Ontario, Canada.
  - Program Examiner. Candidate Z. Li. Supervisor K.P. Sendova. Defence at Western University, London, Ontario, Canada.
- 2015 Examination Chair. Candidate M.A. Owrangi. Supervisors S. Simonovic and R. Lannigan. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate F.C.F. Alsubaei. Supervisor A. El Damatty. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate S. Li. Supervisor H. Hong. Defence at Western University, London, Ontario, Canada.
  - Program Examiner. Candidate C. Yang. Supervisor K.P. Sendova. Defence at Western University, London, Ontario, Canada.
  - Program Examiner. Candidate S. Shan. Supervisor H.S. Sendov. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate G.D.G. Langohr. Supervisor J.A. Johnson. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate M. Kalil. Supervisor A. Shami. Defence at Western University, London, Ontario, Canada.
- 2016 Examination Chair. Candidate L. McCorquodale. Supervisor S. DeLuca. Defence at Western University, London, Ontario, Canada.
- 2017 Examination Chair. Candidate S.V.M. Mackrell. Supervisor E. Hayden. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate K. Nicholson. Supervisors A. Thind and A. Terry. Defence at Western University, London, Ontario, Canada.
  - Program Examiner. Candidate T. Jiang. Supervisor H.S. Sendov. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate D. McKee. Supervisor R. Heydon. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate J.S. Munizzi. Supervisors L. Hodgetts and F. Longstaffe. Defence at Western University, London, Ontario, Canada.
- 2018 Program Examiner. Candidate H. Zareamoghaddam. Supervisors S.B. Provost and S.E. Ahmed. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate J.R. Stinziano. Supervisor D. Way. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate K.M. Macpherson. Supervisor W. Roberts. Defence at Western University, London, Ontario, Canada.
  - University Examiner. Candidate G. Grynkiv. Supervisors L. Stentoft and T.G. Conley. Defence at Western University, London, Ontario, Canada.
- 2019 Program Examiner. Candidate S.J. Kang. Supervisors S.B. Provost and J. Ren. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate N. Samei. Supervisor R. Solis-Oba. Defence at Western University, London, Ontario, Canada.
  - External Examiner/Evaluator. Candidate D. Escobar. Supervisor G. Pflug. Defence at the University of Vienna, Vienna, Austria.

- External Examiner. Candidate Y. Kye. Supervisor E. Furman. Defence at York University, Toronto, Ontario, Canada.
- University Examiner. Candidate A. Uvarov. Supervisor G.Y. Zou. Defence at Western University, London, Ontario, Canada.
- Examination Chair. Candidate Y.S. Chan. Supervisor R.M. Corless. Defence at Western University, London, Ontario, Canada.
- Program Examiner. Candidate R. Zhang. Supervisor K. Sendova. Defence at Western University, London, Ontario, Canada.
- 2021 Examination Chair. Candidate B. Wilk. Supervisors F. Prato and J. Thiessen. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate D. Guy. Supervisor G. Rodrigues. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate D. Palidis. Supervisor P. Gribble. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate F. Naranjo. Supervisors F. Johnson and L. Menor. Defence at Western University, London, Ontario, Canada.
  - Program Examiner. Candidate J. Chen. Supervisors M. Davison and M. Escobar-Anel. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate J. Klassen. Supervisor S. Stewart. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate G. Huppé. Supervisor G. Rowe. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate A. Li. Supervisor X. Zou. Defence at Western University, London, Ontario, Canada.
  - Examination Chair. Candidate S. Goertz. Supervisor J. Davies. Defence at Western University, London, Ontario, Canada.
  - University Examiner. Candidate D.R. Huddleston. Supervisor T.Y. Chung. Defence at Western University, London, Ontario, Canada.
- 2022 Program Examiner. Candidate Y.M. Kobara. Supervisors D.A. Stanford, C.P.E. de Souza, and F.F. Rodrigues. Defence at Western University, London, Ontario, Canada.
- 2023 Program Examiner. Candidate Y. Li. Supervisor R.S. Mamon. Defence at Western University, London, Ontario, Canada.
  - External Examiner. Candidate N. Mohammed. Supervisor E. Furman. Defence at York University, Toronto, Ontario, Canada.
  - University Examiner. Candidate E. Smith. Supervisors G.Y. Zou and V. Jairath. Defence at Western University, London, Ontario, Canada.
  - Program Examiner. Candidate P. Faroughi. Supervisors S. Li and J. Ren. Defence at Western University, London, Ontario, Canada.
  - External Examiner. Candidate J. Miles. Supervisor A. Kuznetsov. Defence at York University, Toronto, Ontario, Canada.
  - University Examiner. Candidate T. Cheng. Supervisor X. Zou. Defence at Western University, London, Ontario, Canada.
  - Program Examiner. Candidate Y. Chen. Supervisors R.S. Mamon and H. Yu. Defence at Western University, London, Ontario, Canada.
- 2024 Program Examiner. Candidate Y. Huang. Supervisors R.S. Mamon and H. Yu. Defence at Western University, London, Ontario, Canada.
  - External Examiner. Candidate A. Fleck. Supervisor E. Furman. Defence at York University, Toronto, Ontario, Canada.

# **Administrative duties**

## **DEPARTMENT COMMITTEES**

Department of Economics, Management and Statistics, University of Milano-Bicocca, Milan, Italy.

 PhD in Economics, Statistics and Data Science Programme Committee<sup>6</sup> 2017–2018 (Member) 2018–2019 (Member) 2019–2020 (Member) 2020–2021 (Member) 2021–2022 (Member) 2022–2023 (Member) 2023–2024 (Member) 2024–2025 (Member)

Department of Statistics, University of Manitoba, Canada.

- Graduate 1999–2000 (Member)
- Scholarships and Awards 1999–2000 (Member)
- Course "Basic Statistical Analysis" 1999–2000 (Member)
- Seminar 1999–2000 (Chair) 2000–2001 (Chair)
- Research 2000–2001 (Member)
- Undergraduate 2000–2001 (Member)

Department of Statistical and Actuarial Sciences, Western University, Canada.

- Actuarial Professional Development 2012–2013 (Member) 2013–2014 (Member) Appointments 2003–2004 (Member) 2022–2023 (Alternate) - Colloquium 2001–2002 (Chair) 2002–2003 (Member) 2003–2004 (Member) 2017–2018 (Chair) 2021–2022 (Chair) - Computing 2011–2012 (Member) Convocation<sup>7</sup> 2016–2017 (Member) 2017-2018 (Chair) 2018-2019 (Chair) 2019–2020 (Chair) 2020-2021 (Chair) 2021–2022 (Chair) 2022–2023 (Chair) 2023–2024 (Volunteer) Course "Introduction to Statistics" 2020–2021 (Coordinator) - Course "Methods of Statistical Analysis" 2002–2003 (Coordinator) 2003–2004 (Coordinator) Graduate 2005–2006 (Member) 2021–2022 (Member) 2004–2005 (Member) 2020–2021 (Member) 2018-2019 (Member) 2022–2023 (Member) 2023–2024 (Member) 2024–2025 (Member) - Internship Liaison 2019–2020 (Member) 2020-2021 (Member) - Library Acquisitions 2011–2012 (Member) 2016–2017 (Member) 2017-2018 (Chair) 2019–2020 (Chair) 2020–2021 (Chair) 2021–2022 (Chair) - Munich Re Cup<sup>8</sup> 2019-2020 (Coach) 2020–2021 (Coach) 2021–2022 (Coach; 2<sup>nd</sup> place) 2022-2023 (Coach; Finalist)

<sup>&</sup>lt;sup>6</sup>It is the executive and decision-making board of the Programme

<sup>&</sup>lt;sup>7</sup>Received a letter of appreciation in 2024 from Western University's President and Vice-Chancellor Dr. Alan Shepard for work on convocations <sup>8</sup>Munich Re Cup is the premier actuarial case competition open to students in Canada and the United States.

-	Outreach 2019–2020 (Member) 2022–2023 (Member)	2020–2021 (Member) 2023–2024 (Member)	2021–2022 (Member) 2024–2025 (Member)
-	Research 2004–2005 (Member) 2008–2009 (Chair)	2005–2006 (Member) 2009–2010 (Chair)	2007-2008 (Member)
_	Social		

- Western Field's Seminar Series
- 2002–2003 (Member) 2003–2004 (Member) - Workload 2003–2004 (Member) 2022–2023 (Member) 2023–2024 (Member)

# SUB-FACULTY COMMITTEES

School of Mathematical and Statistical Sciences, Western University, Canada.

- Calculus 1000 Redesign 2017–2018 (Member) 2018–2019 (Member)
  Colloquium
- 2017–2018 (Member) 2018–2019 (Member)
- Fields Institute Liaison 2018–2019 (Member) 2019–2020 (Member) 2020–2021 (Member) 2021–2022 (Member)
- Library 2017–2018 (Member)
- Research Advisory 2021–2022 (Member)

#### FACULTY COMMITTEES

Faculty of Science, Western University, Canada.

- Nominating 2020–2021 (Member)
- NSERC of Canada Undergraduate Research Awards 2003–2004 (Department Representative)
- Ontario Graduate Scholarships in Science and Technology Ranking 2005 (Member)

Faculty of Social Science, Western University, Canada.

- Faculty Council 2011–2012 (Faculty of Science Dean's Appointed Representative)

Schulich School of Medicine and Dentistry, Western University, Canada.

- Dentistry Admissions 2023–2024 (Member) 2024–2025 (Member) 2025–2026 (Member)

#### UNIVERSITY COMMITTEES

York University, Toronto, Ontario, Canada.

- Risk and Insurance Studies Centre (RISC) Executive 2021–2022 (Member) 2022–2023 (Member)
- RISC Hiring 2018–2019 (Member) 2019–2020 (Member) 2020–2021 (Member) 2021–2022 (Member)
  RISC Student Research Competition
- 2020–2021 (Chair) 2021–2022 (Judge) 2022–2023 (Judge)

University of Milano-Bicocca, Milan, Italy.

Economics, Statistics, and Data Science PhD Teaching Board
 2019–2020 (Member) 2020–2021 (Member) 2021–2022 (Member)
 2022–2023 (Member) 2023–2024 (Member) 2024–2025 (Member)

Western University, London, Canada.

- University Senate

  - 2019–2020 (Member)
    Nominated by the School of Graduate and Postdoctoral Studies (SGPS)
    Faculty of Science Elected Member (representative from SGPS)
- Honorary Degrees Committee, University Senate
  - 2024–2025 (Member) 2025–2026 (Member)
    Nominated by the Faculty of Science
    Elected by the Senate

## **CORPORATE COMMITTEES**

Risk and Insurance Studies Centre (RISC) Foundation. <sup>9</sup>

- Board of Directors 2023–2024 (Member)
- NORM<sup>10</sup> Executive 2023–2024 (Member)

 $<sup>^{9}\</sup>ensuremath{\text{Incorporated}}$  under the Canada Not-for-profit Corporations Act.

<sup>&</sup>lt;sup>10</sup>NORM is a multimillion dollar NSERC Alliance–Mitacs Accelerate grant entitled New Order of Risk Management: Theory and Applications in the Era of Systemic Risk.