Curriculum Vitae

Professor Benjamin Avanzi (PhD, Actuary SAA, GAICD, CERA, FIAA)

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Websites:	Main website: http://www.benjaminavanzi.com Communicate data with R: https://communicate-data-with-r.netlify.app Introduction to actuarial studies (ACTL10001): https://actl10001.netlify.app Topics in actuarial studies (ACTL20004/90021): https://topics-actl.netlify.app/ General insurance modelling (ACTL30007/90020): https://gim-am3.netlify.app Australian General Insurance lab (paper codes): https://github.com/agi-lab
Date of CV:	13 July 2024

Professional qualifications

FIAA	*Fellow of the Institute of Actuaries of Australia* Australian Actuaries Institute
CERA	*Chartered Enterprise Risk Actuary* via the Australian Actuaries Institute CERA Global https://ceraglobal.org/
GAICD	Graduate member of the Australian Institute of Company Directors Company Director Course (CDC), 2022
Actuary SAA	*Fully Qualified Actuary* with the Swiss Association of Actuaries (Fully recognised within the Actuarial Association of Europe)

Academic qualifications

2008	PhD	University of Lausanne, Faculty of Business and Economics (HEC Lausanne), Actuarial Science (supervisor: Prof. Hans U. Gerber)
2005	Lic Oec	University of Lausanne, Faculty of Business and Economics (HEC Lausanne), Business, major in Actuarial Science

Academic appointments

2020 –	Professor (Full) of Actuarial Studies, Centre of Actuarial Studies, Department of Economics Faculty of Business and Economics, University of Melbourne, Australia
2015 – 2020	Associate Professor of Actuarial Studies, School of Risk and Actuarial Studies UNSW Australia Business School, University of New South Wales (UNSW), Australia
2015 – 2018	Professeur associé en actuariat[1], Département de Mathématiques et de Statistique Faculté des Arts et des Sciences, Université de Montréal (UdeM), Canada
2013 – 2015	Professeur agrégé en actuariat[2], Département de Mathématiques et de Statistique Faculté des Arts et des Sciences, Université de Montréal (UdeM), Canada
2013 – 2015	Adjunct Associate Professor, School of Risk and Actuarial Studies UNSW Australia Business School[3], University of New South Wales (UNSW), Australia
2010 – 2013	Senior Lecturer of Actuarial Studies, School of Risk and Actuarial Studies Australian School of Business, University of New South Wales, Australia
2008 – 2010	Lecturer of Actuarial Studies, School of Actuarial Studies Australian School of Business, University of New South Wales, Australia
2005 – 2008	Various casual lecturer positions, University of Lausanne & Bordeaux Business School
2003 – 2008	Teaching and Research assistant, University of Lausanne

Referees

Available upon request.

[1] 'Adjunct Professor' of Actuarial Science
[2] 'Associate Professor' of Actuarial Science
[3] Formerly 'Australian School of Business'

RESEARCH

Overview of research expertise

I am a Swiss and Australian actuary. My current fields of research are insurance risk and capital, as well as climate resilience. In particular, I develop stochastic models for the understanding, management, forecasting and transfer of risks.

Recent topics include:

- — dependence structures between general insurance lines of business (relevant to claims reserving, economic capital, pricing and capital allocation),
- — the optimal control of risk theoretical surplus models (stylised equity (capital) models for risk businesses) for the purpose of reinsurance and stability,
- — the modelling of complex claims processes,
- — the application of machine learning techniques for the enhancement or extension of existing actuarial techniques (such as claims reserving, model error, non discrimination pricing), and
- — the modelling of climate risk in an insurance context, as well as financial resilience of individuals and communities after disasters.

I have also made contributions to the literature in pensions and operations management, and was Executive Chairman of a pension fund in Switzerland before becoming a full time academic.

Fields of Research[4]

Primary:

- — 3502 Banking, finance and investment (350206 Insurance studies, and 350208 Investment and risk management)
- — 4905 Statistics (490501 Applied statistics, 490508 Statistical data science, and 490510 Stochastic analysis and modelling)
- — 4901 Applied mathematics (490106 Financial mathematics, and 490108 Operations research)

Secondary:

- — 3801 Applied economics (380107 Financial economics)
- — 3802 Econometrics (380202 Econometric and statistical methods)
- — 4903 Numerical and computational mathematics (490304 Optimisation)

Major awards

2023	**Hachemeister Prize**, awarded by the Casualty Actuarial Society (CAS) for the paper *Ensemble distributional forecasting for insurance loss reserving* which was presented at the 2022 ASTIN Colloquium
2022	**Highly Commended Paper Prize**, awarded by United Kingdom Institute and Faculty of Actuaries for the paper *SPLICE: A Synthetic Paid Loss and Incurred Cost Experience Simulator* (published in the Annals of Actuarial Science)
2018	**Taylor Fry General Insurance Seminar Silver Prize**, awarded by an independent panel for the paper *How to proxy the unmodellable: Analysing granular insurance claims in the presence of unobservable or complex drivers* (Australian Actuaries Institute General Insurance Seminar, November 2018)
2017	**Hachemeister Prize**, awarded by the Casualty Actuarial Society (CAS) for the paper *Correlations between insurance lines of business: An illusion or a real phenomenon? Some methodological considerations* (2016, ASTIN Bulletin, 46:2)

[4] See, e.g., https://rms.arc.gov.au/RMS/Proposal/Reference/For20Codes.

Publications

Metrics (as of 13 July 2024)

Google Scholar: 1390 citations, h-index of 18 (since 2019: 640 citations, h-index of 15)
Scopus profile: 769 citations, h-index of 13
ResearchGate: Research Interest of 605.3 (88%ile of all RG members, 94%ile of all RG "Risk Management and Insurance" members), h-index of 16 (14 when self-citations are excluded)

Submitted journal articles

2024 1. **Avanzi, B.**, Dong, E., Laub, P., Wong, B.
Distributional Refinement Network: Distributional Forecasting via Deep Learning
Submitted

2024 2. **Avanzi, B.**, Tan, X., Taylor, G., Wong, B.
On the evolution of data breach reporting patterns and frequency in the United States: a cross-state analysis
Submitted

Peer-reviewed journal articles

Accepted manuscripts can be downloaded for free from here (2008-2019) and here (2017-) in accordance with the journals' copyright regulations.
Where there is an icon 🔓 next to the date, then the paper is an Open Access paper (downloadable for free).

2024 🔓 3. **Avanzi, B.**, Li, Y., Wong, B., Xian, A.
Ensemble distributional forecasting for insurance loss reserving
[Q1,A,DL][5] Scandinavian Actuarial Journal, in press, Awarded 2023 Hachemeister Prize

2024 🔓 4. **Avanzi, B.**, De Felice, L.
Optimal Strategies for the Decumulation of Retirement Savings under Differing Appetites for Liquidity and Investment Risks
[Q2,B] Decisions in Economics and Finance, in press

2024 🔓 5. **Avanzi, B.**, Taylor, G., Wang, M., Wong, B.
Machine learning with high-cardinality categorical features in actuarial applications
[Q1,A,DL] ASTIN Bulletin, Vol. 54, pp. 213–238.

2024 🔓 6. **Avanzi, B.**, Lavender, M., Taylor, G., Wong, B.
Detection and treatment of outliers for multivariate robust loss reserving
[Q1,A] Annals of Actuarial Science, Vol. 18, pp. 102–125.

2023 🔓 7. **Avanzi, B.**, Lau, H., Steffensen, M.
Optimal reinsurance design under solvency constraints
[Q1,A,DL] Scandinavian Actuarial Journal

2023 🔓 8. **Avanzi, B.**, Lavender, M., Taylor, G., Wong, B.
On the impact of outliers in loss reserving
[Q2,B] European Actuarial Journal

2023 9. **Avanzi, B.**, Kusch Falden, D., Steffensen, M.
Stable Dividends under Linear-Quadratic Optimization
[Q1,A] Quantitative Finance, Vol. 23, Issue 9, pp. 1199–1215

2023 10. **Avanzi, B.**, Taylor, G., Wang, M.
SPLICE: A Synthetic Paid Loss and Incurred Cost Experience Simulator
[Q1,A] Annals of Actuarial Science (Actuarial Software), Vol. 17, Issue 1, pp. 7–35.

2023 11. **Avanzi, B.**, Chen, P. Henriksen, L. F. B., Wong, B.
On the surplus management of funds with assets and liabilities in presence of solvency requirements
[Q1,A,DL] Scandinavian Actuarial Journal, Volume 2023, Issue 5, pp. 477-508.

2022 12. Al-Mudafer, M. T., **Avanzi, B.**, Taylor, G., Wong, B.
Stochastic loss reserving with mixture density neural networks
[Q1,A*,DL] Insurance: Mathematics and Economics, Vol. 105, pp. 144–174

[5] [Quartile according to Scimago 2022, Journal rank according to the latest ABDC 2019 list. "FT50" means it is part of the 50 journals used in the FT research rank. "DL" means it appears on the Dean's List.]

2021 13. **Avanzi, B.**, Taylor, G., Wang, M., Wong, B.
SynthETIC: an individual insurance claim simulator with feature control
[Q1,A*,DL] Insurance: Mathematics and Economics, Vol. 100, pp. 296–308

2021 14. **Avanzi, B.**, Lau, H.., Wong, B.
On the optimality of joint periodic and extraordinary dividend strategies
[Q1,A*] European Journal of Operational Research, Vol. 295, issue 3, pp. 1189–1210

2021 15. **Avanzi, B.**, Boglioni Beaulieu, G, Lafaye de Micheaux, P., Ouimet, F., Wong, B.
A counterexample to the existence of a general central limit theorem for pairwise independent identically distributed random variables
[Q1,n/a] Journal of Mathematical Analysis and Applications, Vol. 499, Issue 1, 124982

2021 16. **Avanzi, B.**, Taylor, G., Wong, B., Yang, X.
On the modelling of multivariate counts with Cox processes and dependent shot noise intensities
[Q1,A*,DL] Insurance: Mathematics and Economics, Vol. 99, pp. 9–24

2021 17. **Avanzi, B.**, Lau, H.., Wong, B.
Optimal Periodic Dividend Strategies for Spectrally Negative Lévy Risk Processes With Fixed Transaction Costs
[Q1,A,DL] Scandinavian Actuarial Journal, Vol. 2021, Issue 8, pp. 645–670

2021 18. **Avanzi, B.**, Taylor, B., Wong, B., Xian, A.
Modelling and understanding count processes through a Markov-modulated non-homogeneous Poisson process framework
[Q1,A*] European Journal of Operational Research, Vol. 290, Issue 1, pp. 177–195

2021 19. **Avanzi, B.**, Taylor, B., Vu, P. A., Wong, B.
On Unbalanced Data and Common Shock Models in Stochastic Loss Reserving
[Q1,A] Annals of Actuarial Science, Vol. 15, Issue 1, pp. 173–203

2020 20. **Avanzi, B.**, Lau, H.., Wong, B.
Optimal Periodic Dividend Strategies for Spectrally Positive Lévy Risk Processes With Fixed Transaction Costs
[Q1,A*,DL] Insurance: Mathematics and Economics, Vol. 93, pp. 315–332

2020 21. **Avanzi, B.**, Taylor, B., Vu P. A., Wong, B.
A Multivariate Evolutionary Generalised Linear Model Framework with Adaptive Estimation for Claims Reserving
[Q1,A*,DL] Insurance: Mathematics and Economics, Vol. 93, pp. 50–71

2018 22. **Avanzi, B.**, Taylor, B., Wong, B.
Common shock models for claim arrays
[Q1,A,DL] ASTIN Bulletin, Vol. 48, Issue 3, pp. 1109-1136

2018 23. **Avanzi, B.**, Tu, V., Wong, B.
Optimal Dividends Under Erlang(2) Inter-Dividend Decision Times
[Q1,A*,DL] Insurance: Mathematics and Economics, Vol. 79, pp. 225-242

2018 24. **Avanzi, B.**, Henriksen, L. F. B., Wong, B.
On the distribution of the excedents of funds with assets and liabilities in presence of solvency and recovery requirements
[Q1,A,DL] ASTIN Bulletin, Vol. 48, Issue 2, pp. 647–672.

2017 25. **Avanzi, B.**, Pérez, J.-L., Wong, B., Yamazaki, K.
On optimal joint reflective and refractive dividend strategies in spectrally positive Lévy models
[Q1,A*,DL] Insurance: Mathematics and Economics, Vol. 72, pp. 148–162.

2016 26. **Avanzi, B.**, Taylor, G., Vu, P. A., Wong, B.
Stochastic Loss Reserving with Dependence: A Flexible Multivariate Tweedie Approach
[Q1,A*,DL] Insurance: Mathematics and Economics, Vol. 71, pp. 63–78.

2016 27. **Avanzi, B.**, Tu, V., Wong, B.
On the interface between optimal periodic and continuous dividend strategies in the presence of transaction costs
[Q1,A,DL] ASTIN Bulletin, Vol. 46, Issue 3, pp. 709–746.

2016 28. **Avanzi, B.**, Wong, B., Yang, X.
A micro-level claim count model with overdispersion and reporting delays
[Q1,A*,DL] Insurance: Mathematics and Economics, Vol. 71, pp. 1–14.

2016 29. **Avanzi, B.**, Taylor, G., Wong, B.
Correlations between insurance lines of business: An illusion or a real phenomenon? Some methodological considerations
[Q1,A,DL] ASTIN Bulletin, Vol. 46, Issue 2, pp. 225–263.

2016 30. **Avanzi, B.**, Tao, J., Wong, B., Yang, X.
Capturing Non-Exchangeable Dependence in Multivariate Loss Processes with Nested Archimedean Lévy Copulas
[Q1,A] Annals of Actuarial Science, Vol. 10, Issue 01, pp. 87–117.

2016 31. **Avanzi, B.**, Tu, V., Wong, B.
A note on realistic dividends in actuarial surplus models
[Q2,B] Risks, Vol. 4, Issue 4, Number 37

2014 32. **Avanzi, B.**, Tu, V., Wong, B.
On optimal periodic dividend strategies in the dual model with diffusion
[Q1,A*,DL] Insurance: Mathematics and Economics, Vol. 55, pp. 210–224.

2014 33. de Treville, S., Schürhoff, N., Trigeorgis, L., **Avanzi, B.**
Optimal Sourcing and Lead-Time Reduction under Evolutionary Demand Risk
[Q1,A*,FT50,DL] Production and Operations Management, Vol. 23, Issue 12, pp. 2103–2117.

2014 34. **Avanzi, B.**, Purcal, S.
Annuitisation and cross-subsidies in a two-tiered retirement saving system
[Q1,A] Annals of Actuarial Science, Vol. 8, Part 2, pp. 234–252.

2013 35. **Avanzi, B.**, Cheung, E. C. K., Wong, B., Woo, J. K.
On a periodic dividend barrier strategy in the dual model with continuous monitoring of solvency
[Q1,A*,DL] Insurance: Mathematics and Economics, Vol. 52, Issue 1, pp. 98–113.

2013 36. **Avanzi, B.**, Bicer, I., de Treville, S., Trigeorgis, L.
Real Options at the Interface of Finance and Operations: Exploiting Embedded Supply Chain Real Options to Gain Competitiveness
[Q1,A] European Journal of Finance, Vol. 19, Issue 7-8, pp. 760–778.

2012 37. **Avanzi, B.**, Wong, B.
On a mean reverting dividend strategy with Brownian motion
[Q1,A*,DL] Insurance: Mathematics and Economics, Vol. 51, Issue 2, pp. 229–238.

2011 38. **Avanzi, B.**, Shen, J., Wong, B.
Optimal dividends and capital injections in the dual model with diffusion
[Q1,A,DL] ASTIN Bulletin, Vol. 41, Issue 2, pp. 611–644.

2011 39. **Avanzi, B.**, Cassar, L. C., Wong, B.
Modelling Dependence in Insurance Claims Processes with Lévy Copulas
[Q1,A,DL] ASTIN Bulletin, Vol. 41, Issue 2, pp. 575–609.

2010 40. **Avanzi, B.**
What is it that makes the Swiss annuitise? A description of the Swiss retirement system
[n/a,n/a] Australian Actuarial Journal, Vol. 16, Issue 2, pp. 135–162.

2009 41. **Avanzi, B.**
Strategies for Dividend Distribution: A Review
[Q2,A] North American Actuarial Journal, Vol. 13, Issue 2, pp. 217–251.

2008 42. de Treville, S., Edelson, N. M., Kharkar, A. N., **Avanzi, B.**
Constructing useful theory: The case of Six Sigma
[Q1,C] Operations Management Research, Vol. 1, Issue 1, pp. 15–23.

2008 43. **Avanzi, B.**, Gerber, H. U.
Optimal dividends in the dual model with diffusion
[Q1,A,DL] ASTIN Bulletin, Vol. 38, Issue 2, pp. 653–667.

2007 44. **Avanzi, B.**, Gerber, H. U., Shiu, E. S. W.
Optimal dividends in the dual model
[Q1,A*,DL] Insurance: Mathematics and Economics, Vol. 41, Issue 1, pp. 111–123.

Conference publications

2018 1. **Avanzi, B.**, Taylor, G., Wong, B., Xian, A.
How to proxy the unmodellable: Analysing granular insurance claims in the presence of unobservable or complex drivers
Proceedings of the Actuaries Institute 2018 General Insurance Seminar (peer reviewed), 12-13 November 2018 (Sydney, Australia)

2016 2. **Avanzi, B.**, Lavender, M., Taylor, G., Wong, B.
On the Impact, Detection and Treatment of Outliers in Robust Loss Reserving
Proceedings of the Actuaries Institute 2016 General Insurance Seminar (peer reviewed), 13-15 November 2016 (Melbourne, Australia)

2010 3. **Avanzi, B.**, Wong, B.
On a mean reverting dividend strategy with Brownian motion
6th Conference in Actuarial Science & Finance on Samos (Samos, Greece)

2006 4. **Avanzi, B.**, de Treville, S.
Demand Estimation Through Credibility Theory
17th Annual Conference of POMS (Boston, U.S.A.)

2005 5. de Treville, S., Edelson, N. M., Kharkar, A. N., **Avanzi, B.**
Can we develop theory around Six Sigma? Should we care?
16th Annual Conference of POMS (Chicago, U.S.A.)

2004 6. Boisvert, C., de Treville, S., Oyon, D., **Avanzi, B.**
The Impact of Performance Measurement Systems on Lead Time Reduction
CRITOM Conference (Bocconi University, Italy)

R codes and illustrations

2024 1. **Avanzi, B.**, Ho, W., Li, Y., Wong, B., Xian, A.
CRAN package: *ADLP: Accident and Development period adjusted Linear Pools for Actuarial Stochastic Reserving*
https://CRAN.R-project.org/package=ADLP

2021 2. **Avanzi, B.**, Taylor, G., Wang, M.
CRAN package: *SPLICE: Synthetic Paid Loss and Incurred Cost Experience (SPLICE) Simulator*
https://CRAN.R-project.org/package=SPLICE

2020 3. **Avanzi, B.**, Taylor, G., Wang, M., Wong, B.
CRAN package: *SynthETIC: an individual insurance claim simulator with feature control*
https://CRAN.R-project.org/package=SynthETIC

Other R codes related to published papers, with several reproducible examples, are available from the GitHub page of Agi-Lab.

Websites

2023 1. **Avanzi, B.**
Topics in Actuarial, Insurance, and Finance
(website for UniMelb ACTL20004/ACTL90021 - Sections 1.2 and 5.2 of the CM2 actuarial syllabus)

2022 2. **Avanzi, B.**
General Insurance Modelling - AMIII
(website for UniMelb ACTL30007/ACTL90020 - Sections 1 and 2 of the CS2 actuarial syllabus)

2021 3. **Avanzi, B.**
Introduction to Actuarial Studies
(website for UniMelb ACTL10001)

2021 4. **Avanzi, B.**, Boglioni Beaulieu, G., Lafaye de Micheaux, P., Xian, A., Yang, X.
Communicate data with R

Working papers

Recent working papers on arXiv (updated with accepted manuscript versions)
Older working papers on SSRN (not updated)

2024 1. **Avanzi, B.**, Tan, X., Taylor, G., Wong, B.
On the evolution of data breach reporting patterns and frequency in the United States: a cross-state analysis
arXiv q-fin.RM 2310.04786v2

2024 2. **Avanzi, B.**, Dong, E., Laub, P., Wong, B.
Distributional Refinement Network: Distributional Forecasting via Deep Learning
arXiv stat.ML 2406.00998

2023 3. **Avanzi, B.**, de Felice, L.
Optimal Strategies for the Decumulation of Retirement Savings under Differing Appetites for Liquidity and Investment Risks
arXiv econ.GM 2312.14355

2023 4. **Avanzi, B.**, Tan, X., Taylor, G., Wong, B.
Cyber Insurance Risk: Reporting Delays, Third-Party Cyber Events, and Changes in Reporting Propensity - An Analysis Using Data Breaches Published by U.S. State Attorneys General
arXiv q-fin.RM 2310.04786

2023 5. **Avanzi, B.**, Taylor, G., Wang, M., Wong, B.
Machine Learning with High-Cardinality Categorical Features in Actuarial Applications
arXiv stat.ML 2301.12710

2022 6. **Avanzi, B.**, Kusch Falden, D., Steffensen, M.
Stable Dividends under Linear-Quadratic Optimization
arXiv math.OC 2210.03494

2022 7. **Avanzi, B.**, Li, Y., Wong, B., Xian, A.
Ensemble distributional forecasting for insurance loss reserving
arXiv stat.ME 2206.08541

2022 8. **Avanzi, B.**, Lau, H., Steffensen, M.
Optimal reinsurance design under solvency constraints
arXiv math.OC 2203.16108

2022 9. **Avanzi, B.**, Chen, P. Henriksen, L. F. B., Wong, B.
On the surplus management of funds with assets and liabilities in presence of solvency requirements
arXiv math.OC 2203.05139

2022 10. **Avanzi, B.**, Lavender, M., Taylor, G., Wong, B.
Detection and treatment of outliers for multivariate robust loss reserving
arXiv stat.ME 2203.03874

2022 11. **Avanzi, B.**, Lavender, M., Taylor, G., Wong, B.
On the impact of outliers in loss reserving
arXiv stat.ME 2203.00184

2021 12. **Avanzi, B.**, Taylor, G., Wang, M.
SPLICE: A Synthetic Paid Loss and Incurred Cost Experience Simulator
arXiv Qfin.RM 2109.04058

2021 13. Al-Mudafer, M. T., **Avanzi, B.**, Taylor, G., Wong, B.
Stochastic loss reserving with mixture density neural networks
arXiv stat.ME 2108.07924

2020 14. **Avanzi, B.**, Taylor, G., Wang, M., Wong, B.
SynthETIC: an individual insurance claim simulator with feature control
arXiv Qfin.RM 2008.05693

2020 15. **Avanzi, B.**, Lau, H.., Wong, B.
Optimal Periodic Dividend Strategies for Spectrally Negative Lévy Risk Processes With Fixed Transaction Costs
arXiv Math.OC 2004.01838

2020 16. **Avanzi, B.**, Boglioni Beaulieu, G, Lafaye de Micheaux, P., Wong, B.
A Counterexample to the Central Limit Theorem for Pairwise Independent Random Variables Having a Common Absolutely Continuous Arbitrary Margin
arXiv Math.PR 2003.01350

2019 17. **Avanzi, B.**, Taylor, B., Vu P. A., Wong, B.
A Multivariate Evolutionary Generalised Linear Model Framework with Adaptive Estimation for Claims Reserving
UNSW Business School Research Paper No. 2019ACTL03

2019 18. **Avanzi, B.**, Taylor, B., Wong, B., Yang, X.
A Multivariate Micro-Level Insurance Counts Model With a Cox Process Approach
UNSW Business School Research Paper No. 2019ACTL02

2019 19. **Avanzi, B.**, Taylor, B., Wong, B., Xian, A.
Inference of counts using Markov-modulated non-homogeneous Poisson processes
UNSW Business School Research Paper No. 2019ACTL01

2018 20. **Avanzi, B.**, Lau, H.., Wong, B.
Optimal Periodic Dividend Strategies for Spectrally Positive Lévy Risk Processes With Fixed Transaction Costs
UNSW Business School Research Paper No. 2018ACTL02

2018 21. **Avanzi, B.**, Taylor, B., Vu, P. A., Wong, B.
On Unbalanced Data and Common Shock Models in Stochastic Loss Reserving
UNSW Business School Research Paper No. 2018ACTL01

2017 22. **Avanzi, B.**, Tu, V., Wong, B.
Optimal Dividends Under Erlang(2) Inter-Dividend Decision Times
UNSW Business School Research Paper No. 2017ACTL02

2016 23. **Avanzi, B.**, Taylor, B., Wong, B.
Common shock models for claim arrays
UNSW Business School Research Paper No. 2016ACTL07

2016 24. **Avanzi, B.**, Pérez, J.-L., Wong, B., Yamazaki, K.
On optimal joint reflective and refractive dividend strategies in spectrally positive Lévy processes
UNSW Business School Research Paper No. 2016ACTL05

2016 25. **Avanzi, B.**, Henriksen, L. F. B., Wong, B.
On the distribution of the excedents of funds with assets and liabilities in presence of solvency and recovery requirements
UNSW Business School Research Paper No. 2016ACTL03

2016 26. **Avanzi, B.**, Taylor, G., Vu, P. A., Wong, B.
Stochastic Loss Reserving with Dependence: A Flexible Multivariate Tweedie Approach
UNSW Business School Research Paper No. 2016ACTL01

2015 27. **Avanzi, B.**, Wong, B., Yang, X.
A micro-level claim count model with overdispersion and reporting delays
UNSW Business School Research Paper No. 2015ACTL25

2015 28. **Avanzi, B.**, Tu, V., Wong, B.
A note on realistic dividends in actuarial surplus models
UNSW Business School Research Paper No. 2015ACTL20

2015 29. **Avanzi, B.**, Gagné, C., Tu, V.
Is Gamma Frailty a Good Model? Evidence from Canadian Pension Funds
UNSW Business School Research Paper No. 2015ACTL15

2015 30. **Avanzi, B.**, Taylor, G., Wong, B.
Correlations between insurance lines of business: An illusion or a real phenomenon? Some methodological considerations
UNSW Business School Research Paper No. 2015ACTL11

2015 31. **Avanzi, B.**, Tu, V., Wong, B.
On the interface between optimal periodic and continuous dividend strategies in the presence of transaction costs
UNSW Business School Research Paper No. 2015ACTL10

2014 32. **Avanzi, B.**, Tao, J., Wong, B., Yang, X.
Capturing Non-Exchangeable Dependence in Multivariate Loss Processes with Nested Archimedean Lévy Copulas
UNSW Australian School of Business Research Paper No. 2014ACTL05

2013 33. **Avanzi, B.**, Tu, V., Wong, B.
On optimal periodic dividend strategies in the dual model with diffusion
UNSW Australian School of Business Research Paper No. 2013ACTL17

2012 34. **Avanzi, B.**, Cheung, E.C.K, Wong, B., Woo, J.K.
On a Periodic Dividend Barrier Strategy in the Dual Model with Continuous Monitoring of Solvency
UNSW Australian School of Business Research Paper No. 2012ACTL07

2012 35. de Treville, S., Schürhoff, N., Trigeorgis, L., **Avanzi, B.**
Optimal Sourcing and Lead-Time Reduction Under Evolutionary Demand Risk
University of Lausanne Working Paper

2011 36. **Avanzi, B.**, Cassar, L. C., Wong, B.
Modelling Dependence in Insurance Claims Processes with Lévy Copulas
UNSW Australian School of Business Research Paper No. 2011ACTL01

2010 37. de Treville, S., **Avanzi, B.**, Bicer, I., Trigeorgis, L.
Real Options at the Interface of Finance and Operations: Exploiting Embedded Supply Chain Real Options to Gain Competitiveness
UNSW Australian School of Business Research Paper No. 2010ACTL16

2010 38. **Avanzi, B.**, Shen, J., Wong, B.
Optimal dividends and capital injections in the dual model with diffusion
UNSW Australian School of Business Research Paper No. 2010ACTL15

2009 39. **Avanzi, B.**, Wong, B.
On a mean reverting dividend strategy with Brownian motion
UNSW Australian School of Business Research Paper No. 2009ACTL12

2009 40. **Avanzi, B.**, Purcal, S.
Forced savings and annuitisation with cross-subsidies: a mutation of the beast
UNSW Australian School of Business Research Paper No. 2009ACTL09

2009 41. **Avanzi, B.**
What is it that makes the Swiss annuitize? A description of the Swiss retirement system
UNSW Australian School of Business Research Paper No. 2009ACTL06

2008 42. de Treville, S., **Avanzi, B.**, Trigeorgis, L.
Rethinking Lead Time Reduction Investment: A Real Options Perspective
UNSW Australian School of Business Research Paper No. 2008ACTL16

2008 43. **Avanzi, B.**, Gerber, H. U.
Optimal dividends in the dual model with diffusion
UNSW Australian School of Business Research Paper No. 2008ACTL10

2008 44. **Avanzi, B.**
A Review of Modern Collective Risk Theory with Dividend Strategies
UNSW Australian School of Business Research Paper No. 2008ACTL09

Research Funding

National Competitive Grants

2020 – 2024 Australian Research Council (ARC) Discovery Project DP200101859
AUD 310,000 from ARC
Extreme Value Theory Approaches to Insurance in a Catastrophic Environment
Prof Qihe Tang (UNSW); A/Prof Benjamin Avanzi (University of Melbourne); A/Prof Bernard Wong (UNSW); A/Prof Jose Blanchet (Stanford)

2015 – 2020 Chief Investigator
Natural Sciences and Engineering Research Council (NSERC) of Canada, CAD 70,000
Actuarial methods for assessing diversification effects in insurance
Note: Funding for 2016–2020 (CAD 56,000) lapsed due to my return to Australia.

2013 – 2020 Australian Research Council (ARC) Linkage Project LP130100723
AUD 232,449 from ARC, and AUD 88,412 from Industry Partners
Modelling claim dependencies for the general insurance industry with economic capital in view: an innovative approach with stochastic processes
Dr Benjamin Avanzi (UNSW); Dr Bernard Wong (UNSW); Dr Gregory Taylor (UNSW); Mr Stephen Britt (Insurance Australia Group Ltd); Mr Yusuf Cakan (Suncorp Group Ltd); Mr David Koob (Allianz Australia Ltd)

Other External Competitive Grants

2024 – 2025 Natural Hazards Research Australia (NHRA) Project T4-A6: Evaluating the Resilient Homes Fund
AUD 499,845 from NHRA, and AUD 952,690 in-kind
Modelling claim dependencies for the general insurance industry with economic capital in view: an innovative approach with stochastic processes
Prof Paula Jarzabkowski, Dr Matthew Mason, Dr Katie Messner, Prof Alicia Rambaldi, Prof Benjamin Avanzi
Industry partners: Insurance Australia Group (IAG) - Mark Leplastrier; Suncorp - JongSok Oh; RACQ - Vanessa Fabre.

2021 – 2024 Co-Partner Investigator (with Rui Zhou from University of Melbourne, and Katrien Antonio and Jan Dhaene from KU Leuven)
Global PhD Partnership KU Leuven/Melbourne GPP/21/003, 2 full PhD scholarship with travel budget, and about AUD 50,000 cash support for Partner Investigators
VALERIA: Valuation and Advanced Learning methods for Emerging, global Risks In Actuarial science

2015 – 2015 Chief Investigator (with Greg Taylor and Bernard Wong)
Australian Actuarial Research Grant, Institute of Actuaries of Australia, AUD 10,000
General forms of dependency in chain ladder structures

2012 – 2013 Chief Investigator (with Greg Taylor and Bernard Wong)
Australian Actuarial Research Grant, Institute of Actuaries of Australia, AUD 35,000
An innovative approach to stochastic claims reserving with dependence

2010 – 2011 Chief Investigator (with Bernard Wong)
Australian Actuarial Research Grant, Institute of Actuaries of Australia, AUD 20,000
On the economic value of aggregating dependent portfolios

Internal Competitive Grants

2019 – 2019 Chief Investigator (with Pierre Lafaye de Micheaux)
Business School and Faculty of Science Silver Star, AUD 20,000
Complex dependence modelling to unravel relationships in Big Data

2017 – 2018 Chief Investigator (with Greg Taylor and Bernard Wong)
Business School Linkage Silver Star, AUD 40,000
Quantitative risk management and optimal control for general insurers
Partners: Insurance Australia Group Ltd; Suncorp Group Ltd

2012 – 2012 Chief Investigator
Australian School of Business Special Research Grant, AUD 9,000
Towards more realistic dividend strategies in surplus models for risk businesses

2011 – 2011 Chief Investigator (with Bernard Wong)
Australian School of Business Research Grant, AUD 25,000
Optimal dividend problems in surplus models with stochastic firm prospects

2009 – 2009 Chief Investigator (with John Evans)
UNSW 2009 International Research Collaboration Scheme, AUD 7,250
Cross-country study of social security and superannuation systems in Australia, Switzerland, and the Philippines

2009 – 2009 Chief Investigator, Australian School of Business Research Grant, AUD 18,000
Mathematical modelling of the capital of risk businesses with dividend pay-outs

Other Funding

2016 – 2016 Network leader, School of Risk and Actuarial Studies "Insurance Risk and Capital" network, seed funding of AUD 5,000.

Supervision

PhD students supervision

2024 –	Ho Ming Lee (University of Melbourne and KU Leuven - joint PhD with scholarship, main supervisor) *In progress*
2023 –	Gerry Li (UNSW with DP scholarship, external supervisor) *In progress*
2022 –	Eric Dong (UNSW with scholarship, external supervisor) *In progress*
2022 –	Xingyun (Claire) Tan (University of Melbourne with scholarship, co-supervisor) *In progress*
2022 –	Jim (Yanfeng) Li (UNSW with scholarship, external supervisor) *In progress*
2021 –	Athibav Chaudhry (University of Melbourne and KU Leuven - joint PhD with scholarship, co-supervisor) *In progress*
2019 – 2024	Yunshen Yang (UNSW Scientia Scholar, joint, then external joint supervisor) *Now Post-Doctoral researcher at UNSW*
2017 – 2023	Guillaume Boglioni-Beaulieu (UNSW with UIPA and Canadian scholarships, joint, then external joint supervisor) *Now Lecturer at Macquarie University, Sydney*
2016 – 2022	Alan Xian (UNSW with APA, joint, then external supervisor) *Dean's Award for Outstanding PhD Theses* *FIAA, Now Consultant at Taylor Fry Consulting, and Lecturer at Macquarie University, Sydney.*
2016 – 2020	Ka Wai (Hayden) Lau (UNSW with UIPA, joint supervisor) *Now Senior Pricing Analyst at Insurance Australia Group (IAG), Sydney.*
2014 – 2019	Phuong Anh Vu (UdeM and UNSW with APA - joint PhD, joint supervisor) Awarded at UNSW, Awarded at UdeM (with "exceptional" performance) *FIAA, CERA, FCAS, Now Actuary at Munich Re America, New York.*
2013 – 2017	Xinda Yang (UNSW with UIPA, joint supervisor) *Now Senior Pricing Manager at QBE Insurance, Sydney.*
2013 – 2017	Vincent Tu (UNSW with APA, joint supervisor) *FIAA, Now Manager at Taylor Fry Consulting, Sydney.*

MPhil students supervision

2015 – 2016	Guillaume Boglioni-Beaulieu, with "exceptional" performance (UdeM, joint superv.) *PhD UNSW; Now Lecturer at Macquarie University, Sydney*
2014 – 2015	Gwendal Combot, with "excellent" performance (UdeM, main supervisor) *Quantitative Finance (M2) graduate from École polytechnique, France.*

Masters' Essay students supervision

2023 – 2024	Matthew Lambrianidis (ACTL90012, University of Melbourne, main supervisor)
2020 – 2021	Xingyun (Claire) Tan (ACTL90012, University of Melbourne, main supervisor) *Now PhD student at the University of Melbourne.*

Honours students supervision

2023	Lewis de Felice, Honours Class 1, Actuarial Studies Honours Medal (University of Melbourne, main supervisor) *Now Actuarial Consultant at KPMG.*
2022	Melantha (Chenyi) Wang, Honours Class 1, and the University Medal (UNSW, external supervisor) *Now Trader at VivCourt Trading, Sydney.*
2021	Jim (Yanfeng) Li, Honours Class 1, and the University Medal (UNSW, external supervisor) *Now PhD student at UNSW.*

2021	David Yu, Honours Class 1 (UNSW, external supervisor) *Now Graduate Trader at VivCourt Trading, Sydney.*
2020	Muhammed Al-Mudafer, Honours Class 1 (UNSW, external supervisor) *Now at Insurance Australia Group (IAG), Sydney.*
2016	Mark Lavender, Honours Class 1 and the University Medal (UNSW, joint supervisor) *Now Investment Banking Vice President at William Blair, San Francisco (USA).*
2015	Alan Xian, Honours Class 1 and the University Medal (UNSW, joint supervisor) *PhD UNSW, FIAA* *Now Consultant at Taylor Fry Consulting, Sydney, and Lecturer at Macquarie University, Sydney.*
2014	Clement Yeung, Honours Class 2:1 (UNSW, external supervisor) *Now Senior Data Scientist at Loan Market, Sydney.*
2013	Phuong Anh Vu, Honours Class 1 (UNSW, joint supervisor) *PhD UNSW and Université de Montréal, FIAA, CERA, FCAS* *Now Actuary at Munich Re America, New York.*
2012	Chung-Yu Liu, Honours Class 1 (UNSW, joint supervisor) *Now Data Scientist at Insurance Australia Group (IAG), Sydney.*
2012	Vincent Tu, Honours Class 1 (UNSW, joint supervisor) *PhD UNSW, FIAA; Now Manager at Taylor Fry Consulting, Sydney.*
2011	Jamie Tao, Honours Class 1 (UNSW, joint supervisor) *Now Vice President, APAC Treasury at Jefferies, Hong Kong.*
2011	Timothy Yip, Honours Class 1 (UNSW, joint supervisor) *FIAA, Now Director at Taylor Fry Consulting, Sydney.*
2010	Luke Cassar, Honours Class 1 (UNSW, joint supervisor) *FIAA, Now Senior Consultant at Finity Consulting, Sydney.*
2010	Jonathan Shen, Honours Class 1 and the University Medal (UNSW, joint supervisor) *FIAA, Now Head of Data & Analytics at Teachers Health, Sydney.*

Referee and review activities

Editorial duties

2018 –	*ASTIN Bulletin*, Editor
2018 –	*Insurance: Mathematics and Economics*, Associate Editor
2018 – 2018	*ASTIN Bulletin*, Member of the Editorial Board
2016 – 2023	*Risks*, Member of the Editorial Board

Journals refereed (WoS records)

Operations Research
European Journal of Operational Research
Insurance: Mathematics and Economics
ASTIN Bulletin
Scandinavian Actuarial Journal
North American Actuarial Journal
Journal of Risk and Insurance
Annals of Actuarial Science
The Geneva Papers on Risk and Insurance: Issues and Practice
Asia-Pacific Journal of Risk and Insurance
European Actuarial Journal
Variance (CAS Publications)
Risks
Mathematical Finance
Statistics and Probability Letters
Journal of Applied Probability / Advances in Applied Probability
Journal of Computational and Applied Mathematics
Journal of Optimization Theory and Applications
SIAM Journal on Control and Optimization
Stochastic Models
Annals of the New York Academy of Sciences
Japanese Journal of Statistics and Data Science
Economic Modelling
Expert Systems with Applications
Communications in Statistics - Theory and Methods
Applied Stochastic Models in Business and Industry
Filomat
Applied Mathematical Modelling
Mathematical Problems in Engineering
Mathematical Methods in the Applied Sciences
Journal of Inequalities and Applications
IEEE Transactions on Pattern Analysis and Machine Intelligence
International Journal of Information Technology & Decision Making
Intelligent Systems in Accounting, Finance and Management
Discrete Dynamics in Nature and Society
IMA Journal of Management Mathematics
Science China Mathematics
Applied Mathematics - A Journal of Chinese Universities
Bulletin of the Malaysian Mathematical Sciences Society

National Competitive Research Grant agencies

Australia: Australian Research Council (ARC): DP, LP, DECRA, NISDRG, FL
Canada: National Science and Engineering Research Council (NSERC)
Switzerland: National Science Foundation (SNSF)
Poland: National Science Centre (NSC)

External Promotions

UNSW (Sydney, Australia): 2019 (twice)
Macquarie University (Sydney, Australia): 2020
University of Chinese Academy of Sciences (Beijing, China): 2022

Scientific committee of conferences

2020 –	Member of the Advisory Board, One World Actuarial Research Seminar
2020 –	Conference in Actuarial Science & Finance on Samos (Samos, Greece)
2020	Online International Conference in Actuarial science, data science and finance
2018 *[Chair]*	22nd International Congress on Insurance: Mathematics and Economics (Sydney, Australia)
2013	New York Annual Conference of Asia-Pacific Risk and Insurance Association (APRIA)
2012	Seoul Annual Conference of Asia-Pacific Risk and Insurance Association (APRIA)
2011	Tokyo Annual Conference of Asia-Pacific Risk and Insurance Association (APRIA)
2010	Singapore World Risk and Insurance Economics Congress (WRIEC)
2009	Beijing Annual Conference of Asia-Pacific Risk and Insurance Association (APRIA)

Organising committee of conferences

2019	4th Workshop on Risk: modelling, optimization and inference (with applications in Finance, Insurance and Superannuation) (Sydney, Australia)
2017	3rd Workshop on Risk: modelling, optimization and inference (with applications in Finance, Insurance and Superannuation) (Sydney, Australia)

Organising of short events

2022	Uncertainty in decision-making: game-theoretic and machine learning approaches Speakers: Professor Jose Blanchet (Stanford), Professor Henry Lam (Columbia) University of Melbourne, 9 December 2022

Miscellaneous reviewing activities

2012 Skipper Award Committee (APRIA)
2009 Skipper Award Committee (APRIA)

PhD jury

2021 Jan.	ARAUJO ACUNA, José Carlos, Tempering and seasonality in non-life insurance modeling, University of Lausanne. External examiner.
2016 Sep.	JIN, Can (Ken), Occupation time problem in some insurance risk models, University of Melbourne. External examiner.
2014 Dec.	OMIDI-FIROUZI, Hassan, On the design of customized risk measures in insurance, the problem of capital allocation and the theory of fluctuations for Lévy processes, Université de Montréal. Chair.
2014 Oct.	RAMLI, Siti Norafidah Mohd, Modelling Multivariate Dependence Structures in Insurance and Credit Risk via Copulas, Macquarie University, Macquarie University. External examiner.
2014 Aug.	SIMARD, Clarence, Modélisation du carnet d'ordres limites et prévision de séries temporelles, Université de Montréal. Chair.
2014 Mar.	FARD Farzad Alavi, Analysis of Pricing Financial Derivatives Under Regime-Switching Economy, Macquarie University. External examiner.

Academic visits

2022	Dec.	School of Risk and Actuarial Studies, UNSW Sydney (Australia)
2021	Jun.	School of Risk and Actuarial Studies, UNSW Sydney (Australia)
2020	Feb.	School of Risk and Actuarial Studies, UNSW Sydney (Australia)
2019	Aug.	Department of Mathematical Science, University of Copenhagen (Denmark)
2019	Jul.	Institut de Science Financière et d'Assurances, Université Lyon 1 (France)
2019	Jun.-Aug.	Department of Actuarial Science, University of Lausanne (Switzerland)
2019	Mar.	Department of Mathematical Science, University of Copenhagen (Denmark)
2019	Jan.-Feb.	Institut de Science Financière et d'Assurances, Université Lyon 1 (France)
2018	Feb.	Department of Analytics & Operations, National University of Singapore (Singapore)
2015	Jan.	School of Risk and Actuarial Studies, University of New South Wales (Australia)
2014	July	Department of Statistics and Actuarial Science, University of Hong Kong
2014	Mar.	School of Risk and Actuarial Studies, University of New South Wales (Australia)
2014	Mar.	Centre for Actuarial Studies, University of Melbourne (Australia)
2012	Dec.	Department of Mathematics and Statistics, Université de Montréal (Canada)
2012	June	Department of Statistics and Actuarial Science, University of Hong Kong
2012	Jan.	School of Economics and Political Science, University of St. Gallen (Switzerland)
2012	Jan.	Department of Operations, University of Lausanne (Switzerland)
2010	Nov.	Department of Insurance and Risk Management, The Wharton School, UPENN (U.S.A.)
2010	Nov.	Institute of Insurance Economics, University of St. Gallen (Switzerland)
2010	June	Department of Management, University of Lausanne (Switzerland)
2009	Dec.	School of Actuarial Studies, Université Laval (Québec City, Canada)
2009	Dec.	Department of Mathematics and Statistics, Université de Montréal (Canada)
2009	Dec.	Department of Statistics and Actuarial Science, University of Waterloo (Canada)
2009	June	Department of Actuarial Science, University of Lausanne (Switzerland)

Presentations

Conference Presentations (invited speaker)

2019 Sep. *Stochastic dependence and general insurance capital: from data to models*
Plenary Speaker at 6^{th} Workshop on "Recent developments in dependence modelling with applications in finance and insurance" (Agistri, Greece)

2018 Nov. *Modelling insurance claim counts and reporting delays with Cox processes*
Research School of Finance, Actuarial Studies and Statistics – 2018 Summer Camp. (Bowral, Australia)

2017 Dec. *Modelling insurance claim counts and reporting delays with Cox processes*
UNSW-MacquarieU Workshop on Risk: Modelling, optimization and inference (Sydney, Australia)

2017 Nov. *Correlations between lines of business - Are they real or illusionary?*
CAS 2017 Annual Meeting (Anaheim, CA, USA)

2014 July *On optimal periodic dividend strategies in the dual model with diffusion*
Gerber-Shiu Workshop, University of Hong Kong (Hong Kong)

2011 Nov. *Modelling Dependence in Insurance Claims Processes with Lévy Copulas*
Advances in Financial Risk Workshop, Macquarie University (Sydney, Australia)

2010 Dec. *Claim dependence modelling with Lévy copulas*
International Conference in Applied Statistics and Financial Mathematics (Hong Kong)

Conference Presentations (peer-reviewed submissions)

2023 Sep *Fairness through regularization: an approach to mitigate group disparities for multiple protected features*
8^{th} Workshop on "Recent Developments in Dependence Modelling with Applications in Finance, Insurance and Pensions" (Agistri, Greece)

2023 May *Spoilt for Choice: Dealing with Many Categorical Features in Actuarial Machine Learning*
2023 International Congress of Actuaries
(joint with Greg Taylor, Melantha Wang, and Bernard Wong)

2022 July *Stochastic Ensemble Loss Reserving*
25th International Congress on Insurance: Mathematics and Economics (Online)
(joint with Yanfeng Li, Bernard Wong, and Alan Xian)

2022	July	*Optimal reinsurance under terminal value constraints* 25th International Congress on Insurance: Mathematics and Economics (Online) (joint with Hayden Lau and Mogens Steffensen)
2022	June	*Stochastic Ensemble Loss Reserving* 2022 Virtual ASTIN/AFIR Colloquium, June 20-24, 2022 (joint with Yanfeng Li, Bernard Wong, and Alan Xian)
2022	June	*Optimal reinsurance under terminal value constraints* 2022 Virtual ASTIN/AFIR Colloquium, June 20-24, 2022 (joint with Hayden Lau and Mogens Steffensen)
2022	May	*Harnessing the power of "The Wisdom of Crowds": How do we optimize the ensembling of different loss reserving models?* 2022 All-Actuaries Summit: Getting closer, Thinking bigger (Australia) (joint with Yanfeng Li, Bernard Wong, and Alan Xian)
2022	May	*An AI-driven Approach to Quantifying Model Error in Loss Reserving Generalised Linear Models* 2022 All-Actuaries Summit: Getting closer, Thinking bigger (Australia) (joint with Greg Taylor, Bernard Wong, and David Yu)
2022	May	*SPLICE: Synthetic data generation for loss experience* 2022 All-Actuaries Summit: Getting closer, Thinking bigger (Australia) (joint with Greg Taylor, Melantha Wang, and Bernard Wong)
2021	May	*Neural Networks in Reserving: how and why are they worth considering?* 2021 All-Actuaries Virtual Summit: Thriving in an Age of Extremes (Australia) (joint with M. Al-Mudafer, Greg Taylor, and Bernard Wong)
2019	Nov.	*When (not) to use abstract dependence structures: theoretical and practical considerations* 10th Australasian Actuarial Education and Research Symposium (Melbourne, Australia)
2019	July	*Inference of counts using Markov-modulated non-homogeneous Poisson processes* 23rd International Congress on Insurance: Mathematics and Economics (Munich, Germany)
2019	Apr	*A tractable method for unravelling and modelling unobservable or complex dependence drivers (with granular data)* IAA Section Colloquium 2019 (Cape Town, South Africa)
2018	June	*Hybrid strategies in the presence of fixed transaction costs* 10th Conference in Actuarial Science & Finance on Samos (Samos, Greece)
2017	July	*Optimal Dividends Under Erlang(2) Inter-Dividend Decision Times* 21st International Congress on Insurance: Mathematics and Economics (Vienna, Austria))
2016	Sep	*On the distribution of the excedents of funds with assets and liabilities in presence of solvency and recovery requirements* 3rd European Actuarial Journal Conference (Lyon, France)
2016	May	*On the interface between optimal periodic and continuous dividend strategies in the presence of transaction costs* 9th Conference in Actuarial Science & Finance on Samos (Samos, Greece)
2015	Dec	*Correlations between insurance lines of business: An illusion or a real phenomenon? Some methodological considerations* 7th Australasian Actuarial Education and Research Symposium (Gold Coast, Australia)
2014	July	*Claim dependencies in economic capital modeling: The Australian experience* 49th Actuarial Research Conference (Santa Barbara, USA)
2013	July	*On optimal periodic dividend strategies in the dual model with diffusion* 48th Actuarial Research Conference (Philadelphia, USA)
2012	Dec.	*On a mean reverting dividend strategy with Brownian motion* 5th Australasian Actuarial Education and Research Symposium (Melbourne, Australia)
2012	July	*Optimal dividends in a perturbed Cramér-Lundberg model with stochastic prospects and a penalty at ruin* 4th International Gerber-Shiu Workshop (Melbourne, Australia)
2012	June	*Optimal dividends in a perturbed Cramér-Lundberg model with stochastic prospects and a penalty at ruin* 16th International Congress on Insurance: Mathematics and Economics (Hong Kong)
2011	Nov.	*What is it that makes the Swiss annuitise? A description of the Swiss retirement system* 2011 Australasian Actuarial Education and Research Symposium (Canberra, Australia)
2011	June	*Modelling Dependence in Insurance Claims Processes with Lévy Copulas* 15th International Congress on Insurance: Mathematics and Economics (Trieste, Italy)

2011 June *Optimal dividends and capital injections in the dual model with diffusion*
15th International Congress on Insurance: Mathematics and Economics (Trieste, Italy)
2011 June *Modelling Dependence in Insurance Claims Processes with Lévy Copulas*
Memorable Actuarial Research Conference (Leuven, Belgium)
2010 June *On a mean reverting dividend strategy with Brownian motion*
6th Conference in Actuarial Science & Finance on Samos (Samos, Greece)
2009 Sep. *Forced savings and annuitisation with cross-subsidies: a mutation of the beast*
AFIR Colloquium (Munich, Germany)
2009 Sep. *What is it that make the Swiss annuitise? A description of the Swiss retirement system*
LIFE Colloquium (Munich, Germany)
2009 May *On the level of national retirement savings with annuitisation and cross-subsidies: a two-tiered economic model*
13th International Congress on Insurance: Mathematics and Economics (Istanbul, Turkey)
2009 May *What is it that make the Swiss annuitise? A description of the Swiss retirement system*
13th International Congress on Insurance: Mathematics and Economics (Istanbul, Turkey)
2008 Oct. *On Optimal Dividend Strategies: Review and Dual Model*
UNSW Actuarial Studies Research Symposium 2008 (Sydney, Australia)
2008 Jul. *A Review of Modern Collective Risk Theory with Dividend Strategies*
12th International Congress on Insurance: Mathematics and Economics (Dalian, China)
2007 Jul. *Optimal dividends in the dual model with diffusion*
11th International Congress on Insurance: Mathematics and Economics (Piraeus, Greece)
2006 Jul. *Optimal dividends in the dual model*
10th International Congress on Insurance: Mathematics and Economics (Leuven, Belgium)
2006 May *Demand Estimation Through Credibility Theory*
17th Annual Conference of POMS (Boston, USA)

Academic Seminars

2023 Sep *Fairness through regularization: an approach to mitigate group disparities for multiple protected features*
Bayes Business School Seminars (London, UK)
2022 Dec *On the mitigation of unwanted discrimination of multiple protected features via distance covariance regularisation*
2022 UNSW Workshop on Risk and Actuarial Frontiers (Sydney, Australia)
2022 Jun *Ensemble distributional forecasting for insurance loss reserving*
One World Actuarial Research Seminar
2022 Mar *Optimal reinsurance under terminal value constraints*
Department of Econometrics and Business Statistics, Monash Business School, Melbourne (Australia)
2021 Nov *Optimal reinsurance under terminal value constraints*
School of Risk and Actuarial Studies, UNSW Sydney (Australia)
2019 Jul *A Multivariate Evolutionary Generalised Linear Model Framework with Adaptive Estimation for Claims Reserving*
Séminaires L^2 Lyon-Lausanne (ISFA, Lyon)
2019 Jun *Stochastic dependence and general insurance capital: from data to models*
Centre of Actuarial Studies, Department of Economics, University of Melbourne (Australia)
2019 Mar *Inference and prediction of counts using Markov-modulated non-homogeneous Poisson processes*
Department of Mathematical Science, University of Copenhagen (Denmark)
2019 Feb *Inference and prediction of counts using Markov-modulated non-homogeneous Poisson processes*
Séminaire Labo, Institut de Science Financière et d'Assurances, Université Lyon 1 (France)
2016 Aug *On the distribution of the profits of assets-liability funds in presence of regulation*
Macquarie University Actuarial Studies Seminar, Macquarie University (Sydney, Australia)
2015 Dec *Correlations between insurance lines of business: An illusion or a real phenomenon? Some methodological considerations*
School of Risk & Actuarial Studies Research Day 2015 (Sydney, Australia)
2015 Apr. *Dépendance et assurance: une histoire de corrélation?*
Club Mathématique de l'Université de Montréal, Montreal (Canada)
2015 Jan. *Actuarial applications of Lévy copulas*
Actuarial and Financial Mathematics Seminar, Quantact Lab, Center for Research in Mathematics (CRM), Montreal (Canada)

2014 Mar. *On optimal periodic dividend strategies in the dual model with diffusion*
Centre for Actuarial Studies, University of Melbourne (Australia)
2012 Dec. *Dividendes et injections de capital dans le modèle dual : Stratégies optimales*
Séminaires du Centre de Recherche en Mathématiques, Université de Montréal (Canada)
2010 Nov. *An Analysis of Private Pensions in Switzerland, A Country Where People Choose to Save and then Annuitize*
Rosen-Huebner-McCahan Seminar, The Wharton School, UPENN (Philadelphia, U.S.A.)
2010 Nov. *Forced savings and annuitisation: an international perspective*
University of St. Gallen (Switzerland)
2010 Apr. *On a mean reverting dividend strategy with Brownian motion*
UNSW Actuarial Studies Research Seminar (Sydney, Australia)
2009 Dec. *On a mean reverting dividend strategy with Brownian motion*
Séminaires du Centre de Recherche en Mathématiques, Université de Montréal (Canada)
2009 Dec. *On a mean reverting dividend strategy with Brownian motion*
Université Laval (Québec, Canada)
2009 Dec. *Forced savings and annuitisation with cross-subsidies: a mutation of the beast*
Department of Statistics and Actuarial Science Seminars, University of Waterloo (Canada)
2009 Dec. *On a mean reverting dividend strategy with Brownian motion*
Department of Statistics and Actuarial Science Seminars, University of Waterloo (Canada)
2009 Mar. *The demand for retirement annuities and non-mandatory superannuation savings: the case of Switzerland*
Macquarie University Actuarial Studies Seminar, Macquarie University (Sydney, Australia)
2009 Jan. *The demand for retirement annuities and non-mandatory superannuation savings: the case of Switzerland*
International Research Workshop (UNSW, Sydney, Australia)
2008 Fev. *Optimal dividends in the dual model with diffusion*
UNSW Actuarial Studies Research Seminar (Sydney, Australia)
2006 Dec. *Optimal Dividends in the Dual Model*
Séminaires L^2 Lyon-Lausanne (ISFA, Lyon)

Other attended conferences

2022 Nov. 2022 Australasian Actuarial Education and Research Symposium (Canberra, Australia)
2019 Mar. Workshop “Fair Valuation in Insurance” (Brussels, Belgium)
2016 Jun. CAS Course on Professionalism (Toronto, Canada)
2015 Jun. Enterprise Risk Management Symposium (Washington, USA)
2015 Jun. The Changing Face of GI, Actuaries Institute (Sydney, Australia)
2014 July 16th International Congress on Insurance: Mathematics and Economics (Shanghai, China)
2010 Nov. OECD/IOPS Global Forum on Private Pensions, on invitation (Sydney, Australia)
2010 Sep. 6th International Longevity Risk and Capital Markets Solutions Conference (Sydney, Australia)
2010 Jul. 18th Australian Colloquium of Superannuation Researchers, *Retirement Saving Choices: challenges for individuals, industry and public policy* (Sydney, Australia)
2009 Jul. 17th Australian Colloquium of Superannuation Researchers, *Celebrating 100 years of a National Retirement Income System - The Challenges Ahead* (Sydney, Australia)
2009 Jun. 2b) or not 2b) Conference (Lausanne, Switzerland)
2008 Nov. 1st Australasian Actuarial Education and Research Symposium (Sydney, Australia)

TEACHING

Awards

2016	2015 School of Risk and Actuarial Studies Teaching Innovation Award, for "Use of Learning Catalytics in the Actuarial Program"
2011	Nominated for a 2012 Vice-Chancellor Award for Teaching Excellence
2011	Australian School of Business Teaching Excellence Award, for "Outstanding Technology-Enabled Teaching Innovation"

Education

2017		'Presenting online' (one day), Australia's National Institute of Dramatic Art (NIDA)
2017		'Public Speaking Bootcamp' (one day), Australia's National Institute of Dramatic Art (NIDA)
2009	FULT	'Foundations of University Learning and Teaching' (five days), University of New South Wales

Courses taught

2024	S2	ACTL 90021 Topics in Insurance and Finance (M.Sc., University of Melbourne)
2024	S2	ACTL 20004 Topics in Actuarial Studies (B.Sc., University of Melbourne)
2024	S1	ACTL 90020 General Insurance Modelling (M.Sc., University of Melbourne)
2024	S1	ACTL 30007 Actuarial Modelling III (B.Sc., University of Melbourne)
2023	S2	ACTL 90021 Topics in Insurance and Finance (M.Sc., University of Melbourne)
2023	S2	ACTL 20004 Topics in Actuarial Studies (B.Sc., University of Melbourne)
2023	S1	ACTL 90020 General Insurance Modelling (M.Sc., University of Melbourne)
2023	S1	ACTL 30007 Actuarial Modelling III (B.Sc., University of Melbourne)
2022	S1	ACTL 90020 General Insurance Modelling (M.Sc., University of Melbourne)
2022	S1	ACTL 30007 Actuarial Modelling III (B.Sc., University of Melbourne)
2021	S2	ACTL 10001 Introduction to Actuarial Studies (B.Sc., University of Melbourne)
2021	S1	ACTL 90020 General Insurance Modelling (M.Sc., University of Melbourne)
2021	S1	ACTL 30007 Actuarial Modelling III (B.Sc., University of Melbourne)
2020	S2	ACTL 10001 Introduction to Actuarial Studies (B.Sc., University of Melbourne)
2020	S1	ACTL 90020 General Insurance Modelling (M.Sc., University of Melbourne)
2020	S1	ACTL 30007 Actuarial Modelling III (B.Sc., University of Melbourne)
2019	T6	ZZBU 6507 Data Visualisation & Communication – developed but not delivered (fully online, Master of Analytics, UNSW)
2019	T3	ACTL 1101 Introduction to Actuarial Studies (B.Sc., UNSW)
2019	Jul	Actuarial Journals and the Publishing Process (PhD, University of Lyon 1)
2018	S2	ACTL 1101 Introduction to Actuarial Studies (B.Sc., UNSW)
2018	S1	ACTL 4003/5003 Research Methods in Actuarial Science (Honours and HDR, UNSW)
2017	S2	ACTL 1101 Introduction to Actuarial Studies (B.Sc., UNSW)
2017	S2	ACTL 4003/5003 Research Methods in Actuarial Science (Honours and HDR, UNSW)
2016	S2	ACTL 1101 Introduction to Actuarial Studies (B.Sc., UNSW)
2016	S1	ACTL 3141 Actuarial Statistics (B.Sc., UNSW)
2015	S2	ACTL 5106 Insurance Risk Models (M.Sc., UNSW)
2015	S2	ACTL 3162 Insurance Risk Models (B.Sc., UNSW)
2014	Fall	ACT3284 Modèles en assurances IARD (B.Sc., Université de Montréal)
2014	Fall	ACT3241 Théorie du Risque (B.Sc., Université de Montréal)
2013	S2	ACTL 5106 Insurance Risk Models (M.Sc., UNSW)
2013	S2	ACTL 3003 Insurance Risk Models (B.Sc., UNSW)
2013	S1	ACTL 5104 Actuarial Statistics (M.Sc., UNSW)
2013	S1	ACTL 3001 Actuarial Statistics (B.Sc., UNSW)
2012	S2	ACTL 5106 Insurance Risk Models (M.Sc., UNSW)
2012	S2	ACTL 3003 Insurance Risk Models (B.Sc., UNSW)
2011	S2	ACTL 5106 Insurance Risk Models (M.Sc., UNSW)
2011	S2	ACTL 3003 Insurance Risk Models (B.Sc., UNSW)
2011	S1	ACTL 5102 Financial Mathematics (M.Sc., UNSW)
2011	S1	ACTL 2001 Financial Mathematics (B.Sc., UNSW)
2010	SS	ACTL 5102 Financial Mathematics (M.Sc., UNSW)
2010	SS	ACTL 2001 Financial Mathematics (B.Sc., UNSW)

2010	S1	ACTL 5102 Financial Mathematics (M.Sc., UNSW)
2010	S1	ACTL 2001 Financial Mathematics (B.Sc., UNSW)
2009	S2	ACTL 4003/5003 Research Topics in Actuarial Science (Honours and HDR, UNSW)
2009	S2	ACTL 5106 Insurance Risk Models (M.Sc., UNSW)
2009	S1	ACTL 5102 Financial Mathematics (M.Sc., UNSW)
2009	S1	ACTL 2001 Financial Mathematics (B.Sc., UNSW)
2008	S2	ACTL 5106 Insurance Risk Models (M.Sc., UNSW)
2008	S1	Gestion des opérations (B.Sc., University of Lausanne)
2007	S2	Credibility Theory (M.Sc., University of Lausanne)
2007	S1	Gestion des opérations (B.Sc., University of Lausanne)
2005	S2	Laboratory of selected topics in actuarial mathematics (M.Sc., University of Lausanne)
2005	S1	Mathematics of Lead Time (MAS, Bordeaux Business School)

Masters project supervision (ACTL5004)

2016	Ka Wai (Hayden) Lau (UNSW) Now PhD student at UNSW.

Summer Research Scholarships

2019-2020	Melantha (Chenyi) Wang (UNSW)
2019-2020	Simon (Wanzhang) Jing (UNSW)
2018-2019	Wilson Cheng (UNSW)
2016-2017	Guanting Liu (UNSW)
2016-2017	Edward Djizmedjian (UNSW)

INTERNAL ENGAGEMENT AND LEADERSHIP

Awards

2018 **The Dean's Distinguished Leadership Award**, in recognition of exceptional and sustained contributions to the achievement of the goals of the UNSW School of Business and Strategy 2025.

This award may be given to an individual member of staff who, over a sustained period, has provided meritorious and distinguished leadership that has significantly exceeded the scope and commitment of usual expectations in achieving Business School goals.

Academic engagement and leadership

2021 – 2022	Elected Member, Teaching and Learning Quality Assurance Committee (TALQAC), The University of Melbourne – Program review panel member (2021: 1, 2022: 1) – Program review panel chair (2023: 1) – Member, *Working group on diversifying evidence of teaching effectiveness* (2022-2023)
2020 –	Member, Academic Board, The University of Melbourne – Appeals committee member (2020: 1)
2019 – 2019	Elected member, Faculty Board, UNSW Business School, UNSW (representing the Faculty Academic Staff)
2019 – 2019	Member, School of Risk and Actuarial Studies Research Committee, UNSW
2017 – 2018	Chair, UNSW Business School 3+ Reference Group
2017 – 2018	Member, UNSW 3+ Transition Advisory Group
2017 – 2018	Member, UNSW 3+ Engagement Reference Group
2017 – 2018	Elected member, Faculty Board, UNSW Business School, UNSW (representing the School of Risk and Actuarial Studies)
2016 – 2017	Chair, Alternative Delivery Modes Committee, School of Risk and Actuarial Studies, UNSW
2015 – 2017	Associate Head of School, School of Risk and Actuarial Studies, UNSW
2015 – 2017	Chair, Learning & Teaching Committee, School of Risk and Actuarial Studies, UNSW
2015 – 2017	Member, Faculty Education Committee, UNSW Business School, UNSW
2015 – 2017	Member, School Industry Advisory Board, School of Risk and Actuarial Studies, UNSW
2017 – 2017	Member, Education Focussed roles selection committee, UNSW Business School
2015 – 2016	Member, Faculty Board, UNSW Business School, UNSW
2014 – 2015	Chair, website committee, Departement of Mathematics and Statistics, UdeM
2014 – 2015	Member, 'internationalisation' committee, Departement of Mathematics and Statistics, UdeM
2012 – 2013	Elected chair of the *School Plenum*, School of Risk and Actuarial Studies, UNSW
2012 – 2013	Elected member of the *School Advisory Board*, School of Risk and Actuarial Studies, UNSW
2012 – 2013	Postgraduate Research Coordinator, School of Risk and Actuarial Studies, UNSW
2012 – 2013	Honours Coordinator, School of Risk and Actuarial Studies, UNSW
2012 – 2013	Member, *Australian School of Business Promotions Committee for Promotion to Senior Lecturer*, UNSW
2009 – 2012	Academic representative, *Australian School of Business E-learning Committee*, UNSW
2009 – 2012	Director, Actuarial Studies Co-op Program of the UNSW
2011 – 2011	Member, *ASB Linkage Grant Working Party*, UNSW
2010 – 2010	Member, *Australian School of Business Standing Committee*, UNSW
2007 – 2008	Elected member, Commission of the University of Lausanne Personnel (official legal representative of all (administrative and academic) staff employed by the university)
2006 – 2008	Elected member, Faculty Council, Faculty of Business and Economics of the University of Lausanne
2006 – 2008	Treasurer, *Association du Corps Intermédiaire et des Doctorants de l'Université de Lausanne* (official representative of the regular (teaching and research) staff that is below the professor level)
2006 – 2008	Member, Committee *Enseignement* (teaching) of the University of Lausanne
2006 – 2008	Member, Committee *Recherche* (research) of the University of Lausanne

Teaching leadership

Seminars and presentations

2022 (2 February) Yellowdig presenter, *WCLA PD: Student Engagement Pilot Projects of 2021 (Piazza & YellowDig)*
2020 (14 September) Panelist, *WCLA Symposium: Adapting to Radical Disruptions in Business Education*
2018 (February) *Digital Uplift* interview, Business Digital Learning (UNSW Business School, UNSW).
2017 (October, 18) *ACTL1101 Digital Uplift*, School of Risk and Actuarial Studies Digital Uplift Planning (UNSW Business School, UNSW).
2016 (February, 25) *Assessment Good Practice*, School of Risk and Actuarial Studies Learning & Teaching Workshop (UNSW Business School, UNSW).
2015 (November, 3) *Spotlight on Program Learning Goals in the School of Risk and Actuarial*, UNSW Business School – Academic's eLearning Showcase & Workshop (UNSW Business School, UNSW).
2014 (December, 5) Seminar on the flipped classroom to the FOLIUM team (teaching support) of the University of Montreal as well as some flipped classroom pilot project leaders, University of Montréal, Canada
2014 (October, 1) Seminar on how and when to use technology (in particular, tablet PCs and recorded videos) for teaching technical subjects, made to interested members of the Department of Mathematics and Statistics, University of Montréal, Canada
2014 (September, 8) Brief presentation on how and when to use technology (in particular, tablet PCs and recorded videos) for teaching technical subjects, made to the Department Assembly, Department of Mathematics and Statistics, University of Montréal, Canada
2014 (May, 23) Presentation on how and when to use technology (in particular, tablet PCs and recorded videos) for teaching technical subjects, made to the steering committee of the project *Mathéma-TIC*, Montréal, Canada
2013 (August, 16) Member, *Large Class Teaching Panel*, Fundamentals of University Learning and Teaching (FULT), Learning & Teaching @ UNSW
2012 (June, 21) Member, *Large Class Teaching Panel*, Fundamentals of University Learning and Teaching (FULT), Learning & Teaching @ UNSW
2012 (April, 3) *Low-tech high-impact teaching strategies for large classes*, Connections in Learning and Teaching (Learning & Teaching @ UNSW)
2011 (November, 8) *Using videos in teaching: when and how?*, ASB Academics' Showcase of Technology in Teaching (ASB, UNSW)
2011 (February, 17) Member, *Large Class Teaching Panel*, Fundamentals of University Learning and Teaching (FULT), Learning & Teaching @ UNSW
2010 (March, 1) *Australian School of Business Strategic Retreat*, invited for the eLearning component
2010 (August, 26) Member, *Large Class Teaching Panel*, Fundamentals of University Learning and Teaching (FULT), Learning & Teaching @ UNSW
2009 (November, 19) Member, *Large Class Teaching Panel*, Fundamentals of University Learning and Teaching (FULT), Learning & Teaching @ UNSW
2009 (November, 18) Recorded interview by Colina Mason (Learning & Teaching @ UNSW) for the sessional staff gateway resource
2009 (August, 28) School of Accounting seminar (UNSW), *Digital Tablets and Screen Recording*
2009 (July, 8) ASB Workshop (UNSW), *Digital Tablets and Screen Recording*

Other

2016 S1 *FULT peer observation* participant: interested FULT participants can come and observe in my lectures, as well as access the course website.

Other

Formal Mentorship/Coaching

2022 – PhD student at the University of Bayreuth, CoMento Program
2020 – University of Melbourne academic advising program (about 20 undergraduate students per year)
2020 – 2020 University of Melbourne level C
2019 – 2019 UNSW Business School PhD Fellow
2017 – 2017 1 UNSW Scientia Scholar
2016 – 2016 1 UNSW Scientia Scholar
2015 – 2016 1 ECR academic from UNSW Business School

ECR development (external)

2023 – 2023	Guest lecture on how to be a good reviewer (from an Editor's perspective) MQBS Meet the Academic Seminar Series - Session 5: How to become a good reviewer... Macquarie Business School PhD Students, Sydney, Australia (via Zoom)
2022 – 2022	Guest lecture on Research assessment, Actuarial research, and the Publication process ISFA PhD students, Université Bernard, Lyon, France (via Zoom)
2019 – 2019	Guest lecture on Research assessment, Actuarial research, and the Publication process ISFA PhD students, Université Bernard, Lyon, France (in person)

EXTERNAL ENGAGEMENT AND LEADERSHIP

Professional appointments (selected)

2023 – 2026	Non-Executive Director, Management Board of the Theatre Royal (Hobart, Tasmania) Member of the Finance, Audit, and Risk Committee (FRAC)
2021 – 2022	Elected Councillor, Caulfield Junior College Convenor, Policy Review and Development Subcommittee
2020 – 2022	Elected Board Member, École Française Melbourne (EFM) Vice-President since 2021
2018 – 2019	Non-Executive Director, Lycee Condorcet the International French School of Sydney
2014 – 2015	Actuarial consulting, Service de consultation en actuariat (Université de Montréal)
2008 – 2012	Non-Executive Director, *Fondation Comoedia*, Switzerland (group insurance)
2007 – 2008	Founder, Executive Director, *Fondation Comoedia*, Switzerland (group insurance)
2006 – 2008	Executive Director, Chair, *Fondation de prévoyance Artes et Comoedia*, Switzerland (pension fund, 200 employers, 2000 insured)
2004 – 2004	Consultant, *La Suisse Assurances* (actuarial department for group life), Lausanne, Switzerland

Professional affiliations

2018 –	Member, Australian Institute of Company Directors (AICD)
2014 –	Academic Member, Casualty Actuarial Society (CAS)
2008 –	Affiliate member, Actuaries Institute of Australia[6]
2007 –	Member, Swiss Association of Actuaries (full member of IAA)
2009 –	Member, Actuarial Studies in Non-Life Insurance section of IAA (ASTIN)
2008 –	Member, American Risk and Insurance Association (ARIA)
2008 – 2011	Member, Asia-Pacific Risk and Insurance Association (APRIA)

Professional service

2014 –	Member, CAS Academic Central
2009 – 2016	Member, Hachemeister and Michelbacher prizes committee (CAS)
2014 – 2016	Member, Data and Technology Working Party (CAS)

In the media

Press

2024 1. Liu, Q., *As international student numbers rise, calls for urgent reform on pregnancy health cover* The Citizen, 31 January 2024.

Professional websites and blogs

2021 1. Chen, J., *Virtual Summit Shorts: Neural networks in reserving – how and why are they worth considering?* Actuaries Digital, 9 June 2021. (Sydney, Australia)

BusinessThink

2019 1. *A smarter approach to analysis refines insurance predictions*
11 October 2019

2015 2. *Are insurance companies holding too much capital?*
16 December 2015

[6] Inactive in 2013 and 2014.

Other non academic publications

2020 1. **Avanzi, B.**, Taylor, G., Wang, M., Wong, B.
SynthETIC: A simulator of Synthetic Experience Tracking Insurance Claims
Kasa AI Blog, 14 September 2020.

2019 2. **Avanzi, B.**, Taylor, G., Wong, B., Xian, A.
How to proxy the unmodellable
Actuaries Digital, The Magazine of the Actuaries Institute, April 2019. (Sydney, Australia).

2016 3. **Avanzi, B.**, Taylor, G., Wong, B.
Construction of detailed correlation structures across GI business segments
Actuaries Digital, The Magazine of the Actuaries Institute, 14 December 2016. (Sydney, Australia).

2015 4. **Avanzi, B.**, Taylor, G., Wong, B.
Are correlations real or imagined?
Actuaries Digital, The Magazine of the Actuaries Institute, 30 September 2015. (Sydney, Australia).

2014 5. **Avanzi, B.**, Taylor, G., Wong, B.
Research into claim dependencies: an industry and academic collaboration
Actuaries, The Magazine of the Actuaries Institute, August issue, pp. 9–11. (Sydney, Australia).

Industry reports

2016 1. Bothwell, P. T., Kannon M. J., **Avanzi, B.**, Izzo, J. M., Knobloch, S. A., Nichols, R. S., Norris, J. L., Pan, Y., Semenovich, D., Spadola, T. A., Waite, L. M., Yarnell, D. H.
Data & Technology Working Party Report
Casualty Actuarial Society Forum, Fall 2016.

2015 2. **Avanzi, B.**, Gagné, C.
Adjustment of CIA Mortality
Report commissioned by Morneau Shepell (Montréal, Canada).

Industry presentations

2017 Sep. *Recent outlier detection methods with illustrations in loss reserving*
'Insights' session of the Actuaries Institute (Sydney, Australia)

2016 Nov. *On the Impact, Detection and Treatment of Outliers in Robust Loss Reserving*
Actuaries Institute 'General Insurance Seminar' (Melbourne, Australia)

2016 Oct. *Construction of detailed correlation structures across GI business segments*
'Insights' session of the Actuaries Institute (Sydney, Australia)

2016 Sep. Non-life stream presentation of the 'Insurance Risk and Capital' network workshop on *Recent advances and open problems in Insurance Risk and Capital regulation*

2016 Apr. *Diversification in Insurance: A Capital Question*
Learn@Lunch (Sydney, Australia)

2016 Apr. *Beyond Correlation: Recent Developments in Modelling Claims Dependencies*
'Insights' session of the Actuaries Institute (Sydney, Australia)

2015 Oct. *Correlations between insurance lines of business: Illusion or phenomenon?*
'Insights' session of the Actuaries Institute (Sydney, Australia)

Other presentations

2021 Oct. Invited Speaker, 2021 Contact-less Night by Actuarial Students' Society

Events

2016 Organiser, 'Insurance Risk and Capital' network workshop on *Recent advances and open problems in Insurance Risk and Capital regulation*, with Professor Shaun Wang (NTU Singapore) and Robert Thomson (Head of Actuarial services, Australian Prudential Regulation Authority).

Miscellaneous written contributions

2019 Jan. *Welcome to new students*
Finity Actuarial Bulletin

2018 Jan. *Welcome to new students*
Finity Actuarial Bulletin

2016 Jan. *Welcome to new students*
Finity Actuarial Bulletin no 77