Katrien Antonio

Professor

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Bio

Birth	September 9, 1981 (Boom, Belgium)
Citizenship	Belgian
My family	Married, living in Mechelen (Belgium)
	Children: Bas (born 2010) and Rik (born 2012)

Education

2013   **Teaching Portfolio (onderwijsportfolio)**, *KU Leuven*, Leuven, Belgium.
Feedback given by peer review committee with prof. Pierre Van Hecke as chair

2009   **Basis Kwalificatie Onderwijs**, *University of Amsterdam and Centrum voor Nascholing*, Amsterdam, The Netherlands.
Teaching degree for higher education

2003 - 2007   **PhD in Mathematics**, *KU Leuven*, Leuven, Belgium.
Statistical Tools For Non-Life Insurance: Essays On Claims Reserving And Ratemaking For Panels And Fleets.
Promoter: prof. Jan Beirlant, Committee members: prof. Jan Dhaene, dr. Goedele Dierckx, prof. Edward (Jed) Frees, prof. Marc Goovaerts, prof. Wim Schoutens.

2001 - 2003   **MSc in Mathematics**, *KU Leuven*, Leuven, Belgium.
Obtained *summa cum laude*.

1999 - 2001   **BSc in Mathematics**, *KU Leuven*, Leuven, Belgium.
Obtained *cum laude*.

Research interests

In general: actuarial science, insurance analytics, quantitative risk modeling, data science, statistical learning, machine learning, applied statistics

In particular: loss reserving, ratemaking, pricing, non–life insurance, life insurance, telematics insurance, health insurance, mortality modelling, R, Python, teaching statistics, teaching actuarial science, educational technology and innovations

Academic positions

As professor

October 1, 2021 - now   **Full Professor in Actuarial Science and Insurance Analytics**, *KU Leuven*, Leuven, Belgium.
Faculty of Economics and Business, Department of Accountancy, Finance and Insurance, Research Group Insurance

January 1, 2022 - now   **Full Professor in Actuarial Data Science**, *University of Amsterdam*, Amsterdam, The Netherlands.
Faculty of Economics and Business, Amsterdam School of Economics, Section of Quantitative Economics

2016 - now   **Visiting Professor**, *University of Ljubljana*, Ljubljana, Slovenia.
Faculty of Economics and Business, MSc in Quantitative Finance and Actuarial Sciences

2011 - now	**Visiting Professor**, *Collegio Carlo Alberto*, Torino, Italy. MSc in Finance, Insurance and Risk Management
2010 - now	**Professor in the Actuarial Practice Cycle**, *Amsterdam Business School*, University of Amsterdam, The Netherlands. Executive program in Actuarial Science
October 1, 2017 - 2021	**Professor in Actuarial Science and Insurance Analytics**, *KU Leuven*, Leuven, Belgium. Faculty of Economics and Business, Department of Accountancy, Finance and Insurance, Research Group Insurance
2016 - 2021	**Associate Professor in Actuarial Science**, *University of Amsterdam*, Amsterdam, The Netherlands. Faculty of Economics and Business, Amsterdam School of Economics, Section of Actuarial Science and Mathematical Finance
2018 - 2019	**Visiting Professor**, *Aarhus University*, Aarhus, Denmark. Faculty of Economics and Business, Aarhus Summer University program
2013 - 2017	**Associate Professor in Actuarial Science**, *KU Leuven*, Leuven, Belgium. Faculty of Economics and Business, Department of Accountancy, Finance and Insurance, Research Group Insurance
2007 - 2016	**Assistant Professor in Actuarial Science**, *University of Amsterdam*, Amsterdam, The Netherlands. Faculty of Economics and Business, Amsterdam School of Economics, Section of Actuarial Science
2010 - 2013	**Assistant Professor in Actuarial Science**, *KU Leuven*, Leuven, Belgium. Faculty of Economics and Business, Department of Accountancy, Finance and Insurance, Research Group Insurance
2008	**Honorary Fellow**, *University of Wisconsin*, Madison, USA. School of Business, Actuarial Science, Risk Management and Insurance Department, August - December 2008.

Leadership, board member

August 1, 2024 - now	**Head of department Accountancy, Finance and Insurance**, *Faculty of Economics and Business, KU Leuven*, Leuven, Belgium.
October 1, 2018 - now	**Program Director of the MSc of Actuarial and Financial Engineering**, *KU Leuven*, Leuven, Belgium. Faculty of Economics and Business
2015 - now	**Co-director of LRisk: the Leuven Research Centre on Financial and Insurance Risk Analysis**, *LRisk*, KU Leuven, Belgium.
January 1, 2022 - now	**Co-director Research Centre for Longevity Risk**, *University of Amsterdam*, Amsterdam, The Netherlands. University of Amsterdam
October 1, 2021 - August 31, 2024	**Campus Leuven vice-dean for education**, *Faculty of Economics and Business, KU Leuven*, Leuven, Belgium. In this role I served as: program director of the BSc and MSc programs in business economics, chair of the exam committees at FEB campus Leuven.
October 1, 2020 - August 31, 2024	**Industrieel Onderzoeksfonds (IOF), member of the council and member of *het bureau* (the board)**, *KU Leuven*, Leuven, Belgium.
October 1, 2017 - 2021	**Program Director FEB Zij-Instroom Masters**, *KU Leuven*, Leuven, Belgium. Faculty of Economics and Business
March 2017 - October 1, 2021	**Ombuds PhD students**, *KU Leuven*, Leuven, Belgium. Faculty of Economics and Business (with prof. Filip Abraham)
2011 - 2018	**Program Coordinator**, *Master in Insurance Studies*, KU Leuven, Belgium.

Editorial boards

2015 - 2021 **Member of the Editorial Board**, *European Actuarial Journal*, Springer.

Publications

In international journals, with peer review

(47.) S. Loeys, R. Boute & K. Antonio. 2025. The use of IoT sensor data to dynamically assess maintenance risk in service contracts. *European Journal of Operational Research*, accepted, `https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4898807`

(46.) F. Holvoet, K. Antonio & R. Henckaerts. 2024. Neural networks for insurance pricing with frequency and severity data: a benchmark study from data preprocessing to technical tariff. *North American Actuarial Journal*, `https://arxiv.org/abs/2310.12671`

(45.) P. Wilsens, K. Antonio & G. Claeskens. 2024. Reducing the dimensionality and granularity in hierarchical categorical variables. *Advances in data analysis and classification*, doi: `https://doi.org/10.1007/s11634-024-00614-5`.

(44.) B. Campo & K. Antonio. 2024. An engine to simulate insurance fraud network data. *European Actuarial Journal*, doi: `https://link.springer.com/article/10.1007/s13385-024-00399-z`.

(43.) J. Robben & K. Antonio. 2024. Catastrophe risk in a stochastic multi-population mortality model. *Journal of Risk and Insurance*, 91(3), 599-651, doi: `https://doi.org/10.1111/jori.12470`

(42.) B. Campo & K. Antonio. 2024. On clustering levels of a hierarchical categorical risk factor. *Annals of Actuarial Science*, 18(3), 540-578, doi: `https://doi.org/10.1017/S1748499523000283`

(41.) K. Antonio, J. De Spiegeleer, W. Schoutens & E. Verschueren. 2023. The skin-in-the-game bond: a novel sustainable capital instrument. In: K. Alexander, M. Gargantini, M. Siri (Eds.), The Cambridge Handbook of EU Sustainable Finance: Regulation, Supervision and Governance. Cambridge University Press.

(40.) J. Crevecoeur, K. Antonio, S. Desmedt & A. Masquelein. 2023. Bridging the gap between pricing and reserving with an occurrence and development model for non-life insurance claims. *ASTIN Bulletin: The Journal of the IAA*, 53(2), 185-212. doi: `https://doi.org/10.1017/asb.2023.14`

(39.) L. Deprez, K. Antonio, J. Arts & R. Boute. 2023. Data-driven preventive maintenance for a heterogeneous machine portfolio. *Operations Research Letters*, 51(2), 163-170.

(38.) B. D.C. Campo & K. Antonio. 2022. Insurance pricing with hierarchically structured data: an illustration with a workers' compensation insurance portfolio. *Scandinavian Actuarial Journal*, accepted, `https://arxiv.org/abs/2206.15244`

(37.) M. Óskarsdóttir, W. Ahmed, K. Antonio, B. Baesens, R. Dendievel, T. Donas & T. Reynkens. 2022. Social network analytics for supervised fraud detection in insurance. *Risk Analysis: an International Journal*, 42(8), 1872-1890.

(36.) R. Henckaerts, K. Antonio & M.P. Côté. 2022. Model-Agnostic Interpretable and Data-driven suRRogates suited for highly regulated industries. *Expert Systems with Applications*, 202, 117230.

(35.) N. W. Deresa, I. Van Keilegom & K. Antonio. 2022. Copula-based inference for bivariate survival data with left truncation and dependent censoring. *Insurance: Mathematics and Economics*, 107, 1-21.

(34.) R. Verbelen, K. Antonio, J. Crevecoeur & G. Claeskens. 2022. Modeling the occurrence of events subject to a reporting delay via an EM algorithm. *Statistical Science*, 37(3), 394-410.

(33.) J. Robben, K. Antonio & S. Devriendt. 2022. Assessing the impact of the COVID-19 shock on a stochastic multi-population mortality model. *Risks*, 10(2), 26, 1-33.

(32.) R. Henckaerts & K. Antonio. 2022. The added value of dynamically updating motor insurance prices with telematics collected driving behavior data. *Insurance: Mathematics and Economics*, 105, 79-95.

(31.) L. Deprez, K. Antonio & R. Boute. 2022. Empirical risk assessment of maintenance costs under full-service contracts. *European Journal of Operational Research*, 304(2), 476-493.

(30.) J. Crevecoeur, J. Robben & K. Antonio. 2022. A hierarchical reserving model for reported non-life insurance claims. *Insurance: Mathematics and Economics*, 104, 158-184.

(29.) K. Antonio, C. Dutang & A. Tsanakas. 2021. Editorial. *Annals of Actuarial Science*, 15(2), 205-206.

(28.) S. Devriendt, K. Antonio, T. Reynkens & R. Verbelen. 2021. Sparse regression with multi-type regularized feature modeling. *Insurance: Mathematics and Economics,* 96, 248-261.

(27.) F. van Berkum, K. Antonio & M. Vellekoop. 2021. Quantifying longevity gaps using micro-level lifetime data. *Journal of the Royal Statistical Society: Series A (Statistics in Society),* 184(2), 548-570.

(26.) L. Deprez, K. Antonio & R. Boute. 2021. Pricing service maintenance contracts using predictive analytics. *European Journal of Operational Research,* 290(2), 530-545.

(25.) R. Henckaerts, M.P. Côté, K. Antonio & R. Verbelen. 2021. Boosting insights in insurance tariff plans with tree-based machine learning methods. *North American Actuarial Journal,* 25(2), 255-285. Support material is available online at `https://github.com/katrienantonio/distRforest` and `https://github.com/katrienantonio/sevtree`.

(24.) J. Crevecoeur, K. Antonio & R. Verbelen. 2019. Modelling the number of hidden events subject to observation delay. *European Journal of Operational Research*, 277(3), 930-944.

(23.) R. Verbelen, K. Antonio & G. Claeskens. 2018. Unravelling the predictive power of telematics data in car insurance pricing. *Journal of the Royal Statistical Society: Series C*, 67(5), 1275-1304.

(22.) R. Henckaerts, K. Antonio, M. Clijsters & R. Verbelen. 2018. A data driven binning strategy for the construction of insurance tariff classes. *Scandinavian Actuarial Journal*, 8, 681-705.

(21.) E. Stripling, S. vanden Broucke, K. Antonio, M. Snoeck & B. Baesens. 2018. Profit maximizing logistic model for customer churn prediction using genetic algorithms. *Swarm and Evolutionary Computation*, 40, 116-130

(20.) K. Antonio, S. Devriendt, W. de Boer, R. de Vries, A. De Waegenaere, H.K. Kan, E. Kromme, W. Ouburg, T. Schulteis, E. Slagter, M. van der Winden, C. Iersel & M.H. Vellekoop. 2017. Producing the Dutch and Belgian mortality projections: a stochastic multi-population standard. *European Actuarial Journal*, 7(2), 297-336.

(19.) T. Reynkens, R. Verbelen, J. Beirlant & K. Antonio. 2017. Modelling censored losses using splicing: a global fit strategy with mixed Erlang and extreme value distributions. *Insurance: Mathematics and Economics*, 77, 65-77.

(18.) F. Van Berkum, K. Antonio & M. Vellekoop. 2017. A Bayesian joint model for population and portfolio-specific mortality. *ASTIN Bulletin*, 47(3), 681-713.

(17.) J. Dhaene, E. Godecharle, K. Antonio, M. Denuit & H. Hanbali. 2017. Lifelong health insurance covers with surrender values: updating mechanisms in the presence of medical inflation. *ASTIN Bulletin*, 47(3), 803-836.

(16.) R. Verbelen, K. Antonio & G. Claeskens. 2016. Multivariate mixtures of Erlangs for density estimation under censoring. *Lifetime Data Analysis*, 22(3), 429-455.

(15.) F. van Berkum, K. Antonio & M.H. Vellekoop. 2016. The impact of multiple structural changes on mortality predictions. *Scandinavian Actuarial Journal*, 2016:7, 581-603.

(14.) E. Godecharle & K. Antonio. 2015. Reserving by conditioning on markers of individual claims: a case-study using historical simulation. *North American Actuarial Journal*, 19(4), 273-288.

(13.) K. Antonio, A. Bardoutsos & W. Ouburg. Bayesian Poisson log-bilinear models for mortality projections with multiple populations. 2015. *European Actuarial Journal*, 5(2), 245-281.

(12.) R. Verbelen, L. Gong, K. Antonio, A. Badescu & S. Lin. 2015. Fitting mixtures of Erlangs to censored and truncated data using the EM algorithm. *ASTIN Bulletin, 45(3), 729-758.*

(11.) M. Pigeon, K. Antonio & M. Denuit. 2014. Individual loss reserving using paid–incurred data. *Insurance: Mathematics and Economics, 58, 121-131.*

(10.) K. Antonio & H.J. Plat. 2014. Micro–level stochastic loss reserving in general insurance. *Scandinavian Actuarial Journal, 7, 649-669.*

(9.) W. Vercruysse, J. Dhaene, M. Denuit, E. Pitacco & K. Antonio. 2013. Premium indexing in lifelong health insurance. *Far East Journal of Mathematical Sciences, Special Volume 2013 (Part IV)*, 365-384.

(8.) M. Pigeon, K. Antonio & M. Denuit. 2013. Individual loss reserving with the multivariate skew normal framework. *ASTIN Bulletin, The Journal of the International Actuarial Association, 43(3), 399-428.*

(7.) K. Antonio & E.A. Valdez. 2012. Statistical concepts of a priori and a posteriori risk classification. *Advances in Statistical Analysis*, 96(2), 187-224.

(6.) K. Antonio, E.W. Frees & E.A. Valdez. 2010. A multilevel analysis of intercompany claim counts. *ASTIN Bulletin, The Journal of the International Actuarial Association*, 40(1), 151-177.

(5.) H. Van Calster, P. Endels, K. Antonio, K. Verheyen & M. Hermy. 2008. Coppice management effects on experimentally established populations of three herbaceous layer woodland species. *Biological conservation*, 141(10), 2641-2652.

(4.) K. Antonio & J. Beirlant. 2008. Issues in claims reserving and credibility: a semiparametric approach with mixed models. *The Journal of Risk and Insurance*, 75(3), 643-676.

(3.) K. Antonio & J. Beirlant. 2007. Actuarial statistics with generalized linear mixed models. *Insurance: Mathematics and Economics*, 40(1), 58-76.

(2.) K. Antonio, J. Beirlant, T. Hoedemakers & R. Verlaak. 2006. Lognormal mixed models for reported claims reserves. *North American Actuarial Journal*, 10(1), 30-48.

(1.) K. Antonio, J. Beirlant & T. Hoedemakers. 2005. Discussion on 'A Bayesian generalized linear model for the Bornhuetter-Ferguson method of claims reserving'. *North American Actuarial Journal*, 9(3), 143-145.

Working papers

(3.) J. Robben, K. Antonio & T. Kleinow. 2024. The short-term association between environmental variables and mortality: evidence from Europe. `https://arxiv.org/abs/2405.18020`

(2.) S. Devriendt, K. Antonio & M. Vellekoop. Regularized multi-population mortality modeling.

(1.) K. Antonio, E. Godecharle & R. Van Oirbeek. A multi-state approach and flexible payment distributions for micro-level reserving in general insurance. *AFI Research Report, AFI16106*.

Chapters in academic books, internationally recognized scientific publisher

(4.) K. Antonio & Y. Zhang. 2014. *Mixed models.* Chapter 8 in Predictive Modeling Applications in Actuarial Science, Vol. 1 Predictive Modeling Techniques. (Editors E.W. Frees, R.A. Derrig, G. G. Meyers). Cambridge University Press, pages 266-312. (With peer review)

(3.) K. Antonio & Y. Zhang. 2014. *Non-Linear Mixed models.* Chapter 16 in Predictive Modeling Applications in Actuarial Science, Vol. 1 Predictive Modeling Techniques. (Editors E.W. Frees, R.A. Derrig, G. G. Meyers). Cambridge University Press, pages 566-601. (With peer review)

(2.) K. Antonio, P. Shi & F. van Berkum. 2014. *Longitudinal data and experience rating.* Chapter 14 in Computational Actuarial Science, with R (Editor A. Charpentier). Chapman & Hall/CRC Press, pages 513-544.

(1.) K. Antonio & J. Beirlant. 2008. Risk classification in non–life insurance. *Encyclopedia of Quantitative Risk Assessment – Insurance/Actuarial Risks Section.* Wiley.

External reports

(6.) K. Antonio, S. Devriendt, J. Robben & D. Sznajder. 2020. Assessing the impact of COVID-19 on the IA|BE 2020 mortality projections: a scenario analysis. Published by the *Institute of Actuaries in Belgium.*

(5.) K. Antonio, S. Devriendt & J. Robben. 2020. The IA|BE 2020 mortality projection model for the Belgian population. Published by the *Institute of Actuaries in Belgium.*

(4.) K. Antonio & L. Devolder & S. Devriendt. 2015. The IA|BE 2014 mortality projection model for the Belgian population. Published by the *Institute of Actuaries in Belgium.*

(3.) K. Antonio et al. 2014. Prognosetafel AG 2014. *Publicatie van het Actuarieel Genootschap - Actuarieel Instituut.*

(2.) K. Antonio. 2012. Sluiten van de periodetafel GBM/V 2005-2010. *Actuarieel Genootschap - Actuarieel Instituut, extern rapport als bijlage bij 'Prognosetafel AG 2012-2062.'*

(1.) K. Antonio et al. 2012. Prognosetafel AG 2012-2062. *Publicatie van het Actuarieel Genootschap - Actuarieel Instituut.*

In professional journals

(10.) A. Charpentier & K. Antonio. 2017. La tarification par genre en assurance: corrélation ou causalité? *Risques*, 109, 107-110.

(9.) K. Antonio & S. Devriendt. 2015. Lang leven in België: een nieuwe prognose. *CES - Leuvense Economische Standpunten*, LES 2015 151, 1-10 pp.

(8.) R. Verbelen & K. Antonio. 2015. Loss modeling using mixtures of Erlangs. *De Actuaris*, 22(5), 42-44.

(7.) K. Antonio & H.J. Plat. 2013. Stochastische schadereservering op microniveau. *50 jaar ASTIN. Verleden, heden en toekomst*, 28-31.

(6.) K. Antonio & H.J. Plat. 2012. Schadereservering anders?: van driehoeken naar micro–data. *De Actuaris*, Juli 2012, 32-34.

(5.) K. Antonio & H.J. Plat. 2010. A micro–model for IBNR and RBNS loss reserving. *Aenorm*.

(4.) K. Antonio & H.J. Plat. 2010. A micro–model for IBNR and RBNS loss reserving. *The Actuary*, August 2010, 26-27.

(3.) K. Antonio & D. Dannenburg. 2010. Credibiliteit 2.0. *De Actuaris*, Mei 2010, 32-35.

(2.) K. Antonio. 2008. Statistical tools for non-life insurance. *Aenorm* 59, 5-9.

(1.) K. Antonio, M.J. Goovaerts & T. Hoedemakers. 2004. On the distribution of discounted loss reserves. *Medium Econometrische Toepassingen* 12(3), 12-16.

(Research) Grants and Funding

2024 Chairholder of the **AG Insurance Research Chair** on Insurance analytics for a changing risk landscape, 2024-2028. Read interview in ECONnect.

FWO SBO PhD Fellow for the project *FairFActs: Fair learning concepts relevant for actuaries*, financing PhD student Rune Buckinx, November 2024 - October 2028. Promoters: Katrien Antonio and Gerda Claeskens.

2022 Co-chairholder of the **Atlas Copco Research Chair** on Service systems, with chairholder Robert Boute, KU Leuven, 2022-2026.

2021 **ASTeRISK**: Actuaries and Statisticians endeavour to design innovative, inclusive insurance products in a changing Risk landscape. EOS: Excellence of Science funding awarded by FWO and FNRS. See here.

2020 **VALERIA**: Valuation and Advanced Learning methods for Emerging, global Risks In Actuarial science, **joint PhD project with The University of Melbourne**. As Principal Investigator with prof. Jan Dhaene and prof. Rui Zhou (co-PI, Melbourne) and prof. Benjamin Avanzi (Melbourne).

2019 Chairholder of the **Ageas Research Chair** on Insurance Analytics, KU Leuven, with prof. Bart Baesens.

Scientific director of the **DIALog chaire d'excellence**, sponsored by CNP Assurances, with prof. Xavier Milhaud from Université Lyon 1.

2018 **FWO PhD Fellow** for the project *MICRO: Methods for Individual Claims Reserving Operations*, financing PhD student Jonas Crevecoeur, October 2018 - September 2022. Promoter: Katrien Antonio.

GHUM Interdisciplinary Research Project *Understanding Insurance in the Era of Big Data and Personalization of Risk*. Promoters: Katrien Antonio, Ine Van Hoyweghen and Caroline Van Schoubroeck.

2017 **FWO SB grant** for the project *TRIPS: Telematics Redefining Insurance Pricing Strategies*, financing PhD student Roel Henckaerts, January 2018 - December 2021. Promoter: Katrien Antonio.

Chairholder of the **Argenta Research Chair** on Loss Modeling and Reserving Analytics, KU Leuven.

Co-chairholder of the **Atlas Copco Research Chair** on Service systems, with chairholder Robert Boute, KU Leuven, 2017-2021.

2015 **Nationale Bank van België (NBB) finaliteitsbeurs** (50,000 euro) voor *Econometrische modellen voor verzekeringstoepassingen: essays over Bayesiaanse sterftemodellen, zware staarten en extreme waarden statistiek*; as promoter, with co-promoters prof. Jan Beirlant (KU Leuven, campus Leuven) and prof. Goedele Dierckx (KU Leuven, campus Brussels).

C2 research project (601,500 euro), KU Leuven; as promoter, with co-promoters prof. Bart Baesens (KU Leuven, Faculty of Economics and Business) and prof. Caroline Van Schoubroeck (KU Leuven, Faculty of Law).

Chairholder of the **Ageas CE Research Chair** on Insurance Analytics, KU Leuven, with prof. Bart Baesens.

2014 **Leuven University Fund** on Mortality Research, sponsored by the Institute of Actuaries in Belgium.

2013 **IWT Strategisch Basis Onderzoek** grant for the project *Innovative pricing and reserving for non-life insurance* (nr. 131173), financing PhD student Roel Verbelen, January 2014-December 2017. Promoter: Gerda Claeskens, co-promoter: Katrien Antonio.

Carefin – Bocconi Center for Applied Research in Finance research grant (3,000 euro) for the project *Bayesian mortality models for two and more (sub)populations*, with A. Bardoutsos and W. Ouburg.

2012 Co-chairholder of the **AG Insurance Research Chair** on health insurance, KU Leuven, with prof. Jan Dhaene and prof. Michel Denuit.

2011 **FWO research project** (244,000 euro) *Stochastic models in health insurance*, as co-promoter, with prof. Jan Dhaene and prof. Michel Denuit.

2009 **VENI grant by NWO** (250,000 euro) for the project *Non–life: a life insurance approach*. *Veni is targeted at outstanding researchers who have recently obtained their PhD. They are at the start of their scientific career and display a striking talent for scientific research.*

2008 **Individual grants competition** organized by the Casualty Actuarial Society, Actuarial Foundation and the Committee on Knowledge Extension Research of the Society of Actuaries, a 7,500 USD grant for the project *Stochastic Claims Reserving: Micro Models for Run-Off, Incorporating Expert Opinion, and the Interaction with Extreme Value Methodology*.

Awards

Personal awards

2024   Charles A. Hachemeister prize, awarded by the Casualty Actuarial Society, for the paper *Bridging the gap between pricing and reserving with an occurrence and development model for non-life insurance claims*, published in ASTIN Bulletin, see here.

2023   Brockett & Shapiro actuarial award to recognize a risk management and insurance article printed in an actuarial journal, awarded by ARIA: the American Risk and Insurance Association, see here

2022   Annual prize for the best paper published in 2021 in the North American Actuarial Journal, see here.

Special appreciation for teaching, Faculty of Economics and Business, KU Leuven.

2021   Winner of the practitioner's prize *Actuaris van het jaar*.

2018   Special appreciation for teaching, Faculty of Economics and Business, KU Leuven.

2015   Nominated for the practitioner's prize *Actuarieel talent van het jaar*, during the yearly *Actuaris dag* in The Netherlands. I obtained the 2nd place in the debate and voting (with Pim Van Diepen as winner).

2014   Special appreciation for teaching, Faculty of Economics and Business, KU Leuven.

2013   Honorable mention *Teacher of the year* competition at University of Amsterdam.

Best teacher award *Actuarial Practice Cycle* (based on students' evaluations), Amsterdam Business School, Amsterdam, The Netherlands.

Best session award as voted by the participants at the *Casualty Loss Reserve Seminar*, Casualty Actuarial Society, Boston, USA.

2011   Johan de Witt prize (10,000 euro) for the paper *Micro-level stochastic loss reserving in general insurance*, with dr. Richard Plat. The Johan de Witt prize is a best paper award, yearly awarded by the Dutch actuarial association (AG-AI).

Awards for MSc & PhD papers written under my guidance

2022   Promoter of the MSc thesis of Yelle Hunninck (entitled: *A practitioner's guide to a flood risk assessment. Building forward-looking flood maps for insurance applications.*), written at KU Leuven, Johan de Witt thesis prize (5,000 euro) for the best actuarial master thesis, IA|BE 2023 thesis prize, best AFI MSc thesis award.

2021   IME Maplesoft Best Student Paper Awards, for PhD student Roel Henckaerts, with his paper *The added value of dynamically updating motor insurance prices with telematics collected driving behavior data*.

2020   Promoter of the MSc thesis of Iris Nonneman (entitled: *Personalised prediction of the time to the first relapse for patients with Relapsing Remitting Multiple Sclerosis*), written at UvA, Johan de Witt thesis prize (5,000 euro) for the best actuarial master thesis, best FEB master thesis, nominated for the UvA best MSc thesis prize.

2018   Promoter of the MSc thesis of Tine Huybrechts (entitled: *Updating the IA|BE 2015 mortality projection model*), written at KU Leuven, IA|BE thesis prize (1,000 euro) for the best actuarial master thesis.

Co-promoter of the PhD thesis of Frank Van Berkum (entitled: *Models for population-wide and portfolio-specific mortality*), written at University of Amsterdam, final nominee Netspar PhD thesis award.

Best presentation award during the 22nd Insurance: Mathematics and Economics conference at UNSW, Sydney, for PhD student Roel Henckaerts, presenting *Tree-based machine learning for insurance pricing*.

2017 Promoter of the MSc thesis of Roel Henckaerts (entitled: *Risk factors in P&C insurance pricing. A data driven strategy with GAMs, regression trees and GLMs.*), written at KU Leuven, IA|BE thesis prize (1,000 euro) for the best actuarial master thesis.

Runner Up best presentation award during PARTY - Perspectives on Actuarial Risks in Talks of Young researchers, for PhD student Roel Henckaerts, presenting *Using risk factors in P&C insurance pricing: a data driven strategy with GAMs, regression trees and GLMs.* by Henckaerts, Antonio, Clijsters & Verbelen.

2016 2nd Prize best presentation award during the 9th Conference in Actuarial Science and Finance in Samos for PhD student Roel Verbelen, presenting *A statistical modeling approach for car insurance pricing with telematics data* by Verbelen, Antonio & Claeskens.

Promoter of the MSc thesis of Rachel Bonsel (entitled: *The effect of the economic climate on morbidity*), shortlist H.K. Van Nieuwenhuisprijs for the best MSc thesis in economics at the University of Amsterdam (Jury members: UvA professors Diks, Boswijk, Boot and Salomon).

2015 Best presentation award during the Actuarial Research Conference in Toronto for PhD student Roel Verbelen, presenting *Multivariate mixtures of Erlangs for density estimation under censoring* by Verbelen, Antonio & Claeskens.

Promoter of the MSc thesis of Maxime Clijsters (entitled: *Dealing with continuous variables and geographical information in non-life insurance ratemaking. Practical solutions applied to a car insurance data set*), written at KU Leuven, Belfius thesis prize for the best master thesis in actuarial and financial engineering, Johan de Witt prize (5,000 euro) for the best quantitative master paper, IA|BE thesis prize (1,000 euro) for the best actuarial master thesis. The Johan de Witt prize (for MSc papers) is a best paper award, yearly awarded by the Dutch actuarial association (AG-AI).

Promoter of the MSc thesis of Bruno Delaet (entitled: *Regression trees and ensembles of trees in P&C pricing*), written at KU Leuven, IA|BE thesis prize for the best actuarial master thesis.

2014 Promoter of the MSc thesis of Lize Devolder (entitled: *A comparative study of stochastic mortality models for Belgian data, with emphasis on computational aspects of calibration and projection*), written at KU Leuven, Belfius thesis prize for the best master thesis in actuarial and financial engineering.

Promoter of the MSc thesis of Roel Verbelen (entitled: *Phase-type distributions and mixtures of Erlangs: a study of theoretical concepts, calibration techniques & actuarial applications*), written at KU Leuven, IA|BE thesis prize (1,000 euro) for the best actuarial master thesis.

Promoter of the MSc thesis of Wilbert Ouburg (entitled: *Single and multi–population mortality models for Dutch data*), written at University of Amsterdam, Netspar MSc thesis award (3,000 euro). Netspar is the Network of Pensions, Aging and Retirement in The Netherlands.

2013 Promoter of the MSc thesis of Bruno De Laet (entitled: *Mortality improvement rate models*), written at KU Leuven, AFI thesis prize (1,000 euro) for the best MSc thesis in insurance.

Promoter of the MSc thesis of Wilbert Ouburg (entitled: *Single and multi–population mortality models for Dutch data*), written at University of Amsterdam, nominated for the Johan de Witt prize for the best MSc thesis in actuarial science.

Promoter of the MSc thesis of Hok-Kwan Kan (entitled: *A Bayesian mortality forecasting framework for population and portfolio mortality*), written at University of Amsterdam, Netspar MSc thesis award (3,000 euro). Netspar is the Network of Pensions, Aging and Retirement in The Netherlands.

2012 Promoter of the MSc thesis of Laurence Verheye and Siska Depril (entitled: *Een analyse van het AG-AI sterftemodel*, written at KU Leuven, AFI thesis prize (1,000 euro) for the best MSc thesis in insurance.

Promoter of the MSc thesis of Hok–Kwan Kan (entitled: *A Bayesian mortality forecasting framework for population and portfolio mortality*), written at University of Amsterdam, 2nd place Johan de Witt prize for the best MSc thesis in actuarial science. The Johan de Witt prize (for MSc papers) is a best paper award, yearly awarded by the Dutch actuarial association (AG-AI).

Promoter of the MSc thesis of Frederik Borgers (entitled: *Micro–level stochastic loss reserving*), written at KU Leuven, IA|BE (Institute of Belgian Actuaries) thesis prize (1,000 euro) for the best MSc thesis in actuarial science.

2011 Promoter of the MSc thesis of Frank Van Berkum (entitled: *Onderzoek naar een nieuwe tarifering voor autoverzekeringen: analyse van de portefeuille van Bruns ten Brink Assuradeuren B.V.*), H.K. Van Nieuwenhuisprijs for the best MSc thesis in economics at the University of Amsterdam.

Research stays abroad

In total I spent 11 months abroad. Besides these research stays, I have an appointment at the University of Amsterdam since 2007 (full time from 2007-2010 and part time since 2010), where I actively engage in research, teaching (BSc, MSc and executive level), BSc and MSc thesis supervision, conference organization and interaction with corporate connections.

2018 & 2019 Aarhus Summer University, Denmark, two weeks in July.

2017 University of Lausanne, Switzerland, July 2017 (with Hansjoerg Albrecher, Séverine Arnold-Gaille).

2016 University of Wisconsin, Madison, USA, July-August 2016 (2 weeks) (with Peng Shi, Jed Frees).

2015 UQAM, Montreal, Canada, July-August 2015 (6 weeks) (with Mathieu Pigeon, Jean-Philippe Boucher).

Rijksuniversiteit Groningen, Groningen, The Netherlands, March 2015 (1 week) (with Laura Spierdijk).

2012 Cass Business School, City University, London, December 2012 (1 week) (with Jens Perch Nielsen and Maria Miranda Dolores Martinez).

University of Lyon (France), ISFA, April 15 - May 5 2012 (3 weeks) (with Stéphane Loisel and Ragnar Norberg).

2011 University of Barcelona (Spain), Department of Econometrics, April 2011 (2 weeks) (with Montserrat Guillén and Ana–Maria Perez Marin).

2009 University of Barcelona (Spain), Department of Econometrics, September - October 2009 (2 weeks) (with Montserrat Guillén and Ana–Maria Perez Marin).

2008 University of Wisconsin (Madison), School of Business, Actuarial Science, Risk Management and Insurance Department, Fall semester 2008-2009 (with Jed Frees).

2006 University of Wisconsin (Madison), School of Business, Actuarial Science, Risk Management and Insurance department, April-June 2006 (6 weeks) (with Jed Frees).

PhD students

2025 - 2029 **Dries Van Ceulebroeck**, KU Leuven.

2023 - 2025 **Rune Buckinx**, *(with Gerda Claeskens)*, KU Leuven.

2022 - 2026 **Stijn Loeys**, *(with Robert Boute)*, KU Leuven.

2022 - 2026 **Paul Wilsens**, *(with Gerda Claeskens)*, KU Leuven, 1 paper published in: Advances in Data Analysis and Classification.

2021 - 2025 **Freek Holvoet**, KU Leuven, 1 paper published in: North American Actuarial Journal.

2021 - 2023 **Lorenzo Marchi**, *(with Benjamin Avanzi, Jan Dhaene & Rui Zhou)*, KU Leuven & University of Melbourne, (stopped).

2021 - 2025 **Mathias Valla**, *(with Xavier Milhaud)*, Lyon 1 & KU Leuven.
Graduated: March 14, 2024

2020 - 2024 **Jens Robben**, KU Leuven, 3 papers published in: Risks, Insurance: Mathematics and Economics and Journal of Risk and Insurance.
Graduated: October 2, 2024 (first placement: RCLR, University of Amsterdam)

2019 - 2023 **Bavo De Cock Campo**, KU Leuven, 3 papers published in: Scandinavian Actuarial Journal, Annals of Actuarial Science and European Actuarial Journal.
Graduated: January 19, 2024 (first placement: risk modeller at Ageas)

2019 - 2023 **Eva Verschueren**, *(with Wim Schoutens)*, KU Leuven, 2 papers published in: Risks, Quantitative Finance.
Graduated: October 13, 2023 (first placement: quant with Standard Chartered in Warsaw)

2017 - 2021 **Laurens Deprez**, *(with Robert Boute)*, KU Leuven, 2 papers published in: European Journal of Operational Research, 1 paper in Operations Research Letters.
Graduated: August 31, 2021 (first placement: postdoc at University of Luxembourg, now quantitative analyst with Belfius bank)

2016 - 2020 **Jonas Crevecoeur**, KU Leuven, 4 papers from his PhD published in: European Journal of Operational Research, Statistical Science, Insurance: Mathematics and Economics, ASTIN Bulletin.
Graduated: November 13, 2020 (first placement: Hasselt University and KU Leuven, now at Dataminded)

2016 - 2020 **Roel Henckaerts**, KU Leuven, 4 papers from his PhD published in: Scandinavian Actuarial Journal, North American Actuarial Journal, Expert Systems with Applications, Insurance: Mathematics and Economics.
Graduated: October 12, 2021 (first placement: self-employed)

2015 - 2019 **Sander Devriendt**, KU Leuven, 2 papers published in: European Actuarial Journal, Insurance: Mathematics and Economics.
Graduated: September 14, 2021 (first placement: NBB, Nationale Bank België)

2014 - 2018 **Frank Van Berkum**, *(with Michel Vellekoop)*, University of Amsterdam, 3 papers published in: ASTIN Bulletin, Scandinavian Actuarial Journal, JRSS A.
Graduated March 28, 2018 (first placement: PwC, Amsterdam)

2014 - 2018 **Roel Verbelen**, *(with Gerda Claeskens)*, KU Leuven, 4 papers from his PhD published in: ASTIN Bulletin, Journal of Lifetime Data Analysis, JRSS C, Statistical Science.
Graduated June 13, 2017 (first placement: Finity Consulting, Sydney, Australia)

2012 - 2016 **Anastasios Bardoutsos**, *(with Jan Beirlant)*, KU Leuven, 3 papers published in: Journal of Applied Probability, European Actuarial Journal, Statistics & Probability Letters.
Graduated May 13, 2016 (first placement: University of Groningen, now at Nationale Nederlanden)

2012 - 2016 **Els Godecharle**, KU Leuven, 1 paper published in North American Actuarial Journal, 1 paper published in ASTIN Bulletin.
Graduated May 13, 2016 (first placement: KPMG, Melbourne, Australia)

Postdoc researchers

2018 - 2109 **María Óskarsdóttir**, KU Leuven.
1 year (first placement: University of Reykjavik)

2017 - 2018 **Tom Reynkens**, KU Leuven.
1 year (first placement: Belfius bank, Brussels, now: head of AI Lab at Belfius)

2018 **Roel Verbelen**, KU Leuven.
3 months (first placement: Finity Consulting, Sydney, Australia)

Membership of PhD and HdR juries

2025 **Antoine Burg**, *Université Paris Dauphine*, France, Promoters: prof. Christophe Dutang, prof. Marc Hoffmann.

Oliver Lunding Sandqvist, *University of Copenhagen*, Denmark, Promoter: prof. Christian Furrer.

Steven De Keyser, *KU Leuven*, Belgium, Promoter: Irene Gijbels.

2024 **Mathias Valla**, *Université Lyon 1*, France, Promoter: prof. Xavier Milhaud, prof. Christian Robert, prof. Katrien Antonio.

Samuel Stocksieker, *Université Lyon 1*, France, Promoter: prof. Arthur Charpentier, prof. Denys Pommeret, prof. Fréderic Planchet.

Jingyan Zhang, *KU Leuven*, Belgium, Promoter: Wim Schoutens.

Marie Michaelides, *UQAM*, Canada, Promoters: Mathieu Pigeon and Helene Cossette.

2023 **Pierre Chatelain**, *Université Lyon 1*, France, Promoter: prof. Stéphane Loisel.

2022 **Robert Verschuren**, *University of Amsterdam*, The Netherlands, Promoter: prof. Michel Vellekoop and prof. Peter Boswijk.

Yuan Yue, *University of Amsterdam*, The Netherlands, Promoter: prof. Roger Laeven and prof. Jan Magnus.

Jolien Ponnet, *KU Leuven*, Belgium, Promoter: prof. Tim Verdonck.

2021 **Christophe Dutang**, *Université Paris Dauphine*, France, Habilitation à Diriger des Recherches.

Arthur Maillart, *Université Lyon 1*, France, Promoter: prof. Christian Robert.

Quinten Meertens, *University of Amsterdam*, The Netherlands, Promoter: prof. Cees Diks.

2020 **Negera Wakgari Deresa**, *KU Leuven*, Belgium, Promoter: prof. Ingrid Van Keilegom.

Jing Zhou, *KU Leuven*, Belgium, Promoter: prof. Gerda Claeskens.

2019 **Felix Wahl**, *Stockholms Universitet*, Sweden, Promoter: prof. Mathias Millberg Lindholm.

Yohann Le Faou, *Sorbonne Université, Paris*, France, Promoter: prof. Olivier Lopez.

Karim Barigou, *KU Leuven*, Belgium, Promoter: prof. Jan Dhaene.

Hamza Hanbali, *KU Leuven*, Belgium, Promoter: prof. Jan Dhaene.

2018 **Lenny Stoeldraijer**, *University of Groningen*, The Netherlands, Promoter: prof. Fanny Janssen and prof. Leo Van Wissen.

Eugen Stripling, *KU Leuven*, Belgium, Promoter: prof. Monique Snoeck.

2017 **Liivika Tee**, *Tartu University*, Estonia, Promoter: prof. Meelis Kaarik.

Liang Chen, *Heriot Watt University*, Edinburgh, Scotland, Promoter: prof. Torsten Kleinow, prof. Andrew Cairns.

2016 **Arthur Charpentier**, *Université de Rennes*, France, Habilitation à Diriger des Recherches.

Anas Abdallah, *Université de Laval*, Canada, Promoter: prof. Helene Cossette (Laval), Jean-Philippe Boucher (UQAM).

2015 **Véronique Van Vlasselaer**, *KU Leuven*, Belgium, Promoter: prof. Bart Baesens.
(as chair)

Inge Vrinssen, *KU Leuven*, Belgium, Promoter: prof. Irène Gijbels, Co-promoter: prof. Gerda Claeskens.

Monica Forys, *KU Leuven*, Belgium, Promoter: prof. Wim Schoutens.

Hong Li, *Tilburg University*, The Netherlands, Promoter: prof. Anja de Waegenaere, prof. Bertrand Melenberg.

Leo Guelman, *University of Barcelona*, Spain, Promoter: prof. Montserrat Guillen.

2014 **Ying Yang**, *Tilburg University*, The Netherlands, Promoter: prof. Anja de Waegenaere, prof. Bertrand Melenberg.

Mathieu Pigeon, *Université Catholique de Louvain-la-Neuve*, Belgium, Promoter: prof. Michel Denuit.

2013   **Daniël Linders**, *KU Leuven*, Belgium, Promoter: prof. Jan Dhaene.

      Philippe Louis, *KU Leuven*, Belgium, Promoter: prof. Bart Baesens.

2012   **Sara Maccaferri**, *KU Leuven*, Belgium, Promoter: prof. Wim Schoutens.

      Julien Tomas, *UvA*, The Netherlands, Promoter: prof. Rob Kaas.

2011   **Florence Guillaume**, *KU Leuven & TU Eindhoven*, Belgium & The Netherlands, Promoter: prof. Wim Schoutens.

2010   **Richard Plat**, *UvA*, The Netherlands, Promoter: prof. Antoon Pelsser.

In house training, CPD and research coordination

Corporate

I regularly interact with corporate contacts through in-house training. Examples of recent trainings and continuous professional development for actuaries and data analysts, developed and taught by my research team:

- Data science certificate issued by the Institute of Actuaries in Belgium
- Data science and machine learning for risk professionals (2 or 3 days)
- Predictive modeling (2 days)
- Predictive modeling in non-life insurance, with SAS (2 days)
- A gentle introduction to R for actuaries (half day)
- Loss modeling analytics (half day)
- Individual claims reserving (half day)
- Hands-on machine learning in Python (3 half days)
- Predictive modelling computer labs with Python
- Hands-on machine learning in R (3 days)
- Predictive modeling using R (2 days)
- Stochastic modeling of longevity risk (2 days)
- Loss reserving analytics
- Mixture modeling and the EM algorithm (half day)
- Insurance fraud analytics (half day).

Summer schools and CPD for actuarial associations

June 2024   **35th International Summer School on Modelling and quantifying mortality and longevity risk**, *Swiss Assocation of Actuaries*, Lausanne, Switzerland.
with Michel Vellekoop, Torsten Kleinow, Frank van Berkum, Jens Robben

March 2023   **Two day training on Modeling, Estimation and Hedging of Longevity Risk**, *Reykjavik University and Icelandic Actuarial Association*, Reykjavik, Iceland.
with W. Ouburg (Nationale Nederlanden) and M. Vellekoop (UvA)

Spring 2019   **Two day training on Modeling, Estimation and Hedging of Longevity Risk**, *European Actuarial Academy*, Warsaw, Poland.
with W. Ouburg (Nationale Nederlanden) and M. Vellekoop (UvA)

August 2016   **Two day training on Modeling, Estimation and Hedging of Longevity Risk**, *Summer School of the Institute of Actuaries*, Leuven, Belgium.
with W. Ouburg (Delta Lloyd and UvA) and M. Vellekoop (UvA)

March 2016   **Two day training on Modeling and Validating mortality under Solvency II**, *European Actuarial Academy*, Madrid, Spain.
with W. Ouburg (Delta Lloyd and UvA) and M. Vellekoop (UvA)

May 2015   **Two day training on Modeling and Validating mortality under Solvency II**, *European Actuarial Academy*, Stockholm, Sweden.
with W. Ouburg (Delta Lloyd and UvA) and M. Vellekoop (UvA)

2013 - now **Leuven University Fund on Mortality Research**, *with the Institute of Actuaries Belgium*, Brussels, Belgium.

General tasks: construction of a period and projected mortality table for the Belgian population, programming in R, implementing models from scientific literature, reporting, presenting. Within this fund I was lead researcher to produce a new stochastic mortality projection model for the Belgian population, published by the Institute of Actuaries as a best practice for the industry.

2011 - 2014 **Member of the *Werkgroep Prognosetafel***, *Actuarieel Genootschap*, Utrecht, The Netherlands.

General tasks: construction of a period and projected mortality table for the Dutch population. Personal duties: programming in R, implementing models from scientific literature, reporting.

Research coordination, membership of educational committees

2021 - now **Board member of Actuarial Alumni and Friends, alumni chapter for graduates of the MSc in Actuarial and Financial Engineering**, *http://www.actuarialfriendsleuven.be/*, KU Leuven, Belgium.

2015 - now **Co-founder and member of LRisk: the Leuven Research Centre on Financial and Insurance Risk Analysis**, *LRisk*, KU Leuven, Belgium.

2012 & 2014 **Author & coordinator**, *Application file Two year Master program in Insurance Studies for the Flemish government.*, KU Leuven, Belgium.

Successful application in 2014, reviewed by international experts.

2011 **Author & coordinator**, *Self assessment report and audit Master in Insurance Studies*, KU Leuven, Belgium.

2007 - 2014 **Member**, *Educational committee Actuarial Science, Econometrics and OR*, University of Amsterdam, The Netherlands.

Program committees, conference organization, jury participation

2022 **Co-organizer of the workshop *Pandemic scenarios: number crunching and communication strategies***, *Amsterdam*, June 24.

With: Torsten Kleinow, Michel Vellekoop

2021 **Co-organizer of the workshop and emeritus celebration in honour of prof. Jan Beirlant**, *Leuven*, September 30 - October 1.

With: An Carbonez, Wim Schoutens, Dina Vanpaemel

Member of the scientific committee of Insurance Data Science Conference, *online.*

With: Andreas Tsanakas, Patrick Cheridito, Guojun Gan, Markus Gesmann, Ioannis Kyriakou, Davide de March, Pauli Rämö, Ronald Richman, Jürg Schelldorfer, Giorgio Spedicato, Christophe Dutang, Mario Wütrich

2019 **Member of the scientific committee of Insurance Data Science Conference**, *ETH*, Zürich, Switzerland.

With: Andreas Tsanakas, Patrick Cheridito, Guojun Gan, Markus Gesmann, Ioannis Kyriakou, Davide de March, Pauli Rämö, Ronald Richman, Jürg Schelldorfer, Giorgio Spedicato, Christophe Dutang, Mario Wütrich

2018 **Organizer of *IA|BE Summer School on Reinsurance***, Leuven, Belgium.

October 9 & 10.

Lead organizer of the 4th Conference of the European Actuarial Journal, *Leuven*, Belgium, Program book.

Member of the scientific committee of Insurance Data Science Conference, *Cass Business School*, London, UK.

With: dr. Andreas Tsanakas, Markus Gesmann, dr. Giorgio Spedicato, dr. Christophe Dutang

2017 **Member of the scientific committee of `R in insurance`**, *ENSAE*, Paris, France.

With: dr. Andreas Tsanakas, Markus Gesmann, dr. Giorgio Spedicato, dr. Christophe Dutang

2016 **Organizer of *LRisk and IA|BE Summer School on Modeling, Estimation and Hedging of Longevity Risk***, Leuven, Belgium.
With: Gerda Elsen, KU Leuven campus Brussel, August 25 & 26.

2016 **Member of the scientific committee of `R in insurance`**, *Cass Business School*, London, UK.
With: dr. Andreas Tsanakas, Markus Gesmann, dr. Giorgio Spedicato, dr. Christophe Dutang

2015 **Member of the jury of the Econometric Game, the world championship of econometrics**, *University of Amsterdam*, Amsterdam, The Netherlands.
With: prof. dr. Bas Werker (Tilburg University), prof. dr. Michel Vellekoop (University of Amsterdam), dr. Ramon van den Akker (Tilburg University and SNS Reaal)

Member of the scientific and organizing committee of *R in insurance*, (as lead organizer), *University of Amsterdam*, Amsterdam, The Netherlands.
With: dr. Andreas Tsanakas (Cass Business School), Markus Gesmann (Lloyd's London), prof. Jens Perch Nielsen (Cass Business School), dr. Christophe Dutang (LeMans University), prof. Michel Vellekoop (UvA), prof. Roger Laeven (UvA), June 29.

Member of the program committee of *Rob in insurance*, *University of Amsterdam*, Amsterdam, The Netherlands.
With: prof. Michel Vellekoop (UvA), prof. Roger Laeven (UvA), dr. Angela Van Heerwaarden (UvA), drs. Evelien Brink, June 30.

Member of the scientific committee of *ASTIN 2015*, Syndey, Australia.
With: prof. Piet de Jong (Macquarie), prof. Mario Wüthrich (ETH), prof. Richard Verrall (City University), prof. Enrique de Alba (ITAM, Mexico), prof. Jed Frees (University of Wisconin in Madison), prof. Jackie Li (National University of Singapore)

2014 **Organizer of *IA|BE Summer School on Pricing and Hedging Insurance Liabilities in Incomplete Markets***, Leuven, Belgium.
With: Gerda Elsen, HU Brussel, September 11 & 12.

Member of the scientific committee of *R in insurance*, *Cass Business School*, London, UK.
With: dr. Andreas Tsanakas, Markus Gesmann, prof. Jens Perch Nielsen, dr. Christophe Dutang

2013 **Chair of the scientific committee of *ASTIN 2013***, The Hague, The Netherlands.
With: Michiel van der Wardt, prof. Montserrat Guillen, prof. Anja de Waegenaere, prof. Antoon Pelsser, Dennis Dannenburg, Peter ter Berg, Angela van Heerwaarden, Eveline Bos

2012 **Organizer of *IA|BE Summer School on Valuation of Contingent Claims***, Leuven, Belgium.
With: Gerda Elsen, HU Brussel, September 20 & 21.

2011 **Organizer of *IA|BE Summer School on Enterprise Risk Measurement***, Leuven, Belgium.
With: Gerda Elsen, HU Brussel, September 8 & 9.

Teaching experience

I have a broad teaching experience at Bachelor, Master and Executive Master level, including:

- Data Science for Non Life Insurance (6 ects, KU Leuven);
- Advanced Non Life Insurance Mathematics (6 ects, KU Leuven);
- Non Life Insurance or Loss Models (6 ects, KU Leuven);
- Statistics for Actuarial Science (6 ects, KU Leuven);
- Case on Loss reserving (Amsterdam Business School, Executive program in Actuarial Science);
- Insurance Analytics (Amsterdam Business School);
- Advanced Life Insurance Mathematics (6 ects, KU Leuven);
- Life Insurance Mathematics (6 ects, University of Amsterdam);
- Probability Theory and Statistics (University of Amsterdam);
- Case on Disability Insurance (Amsterdam Business School, Amsterdam Business School, Executive program in actuarial science).

Links to teaching evaluations of my courses:

- Life Insurance Mathematics, University of Amsterdam: evaluation 2016-2017, 2017-2018, 2018-2019, 2019-2020, 2020-2021
- Insurance Analytics, Amsterdam Business School: evaluation 2019 and 2020.
- Data science in insurance, Aarhus Summer University: evaluation 2019.
- Lecture in the Postgraduaat Big Data and Analytics in Business and Management, KU Leuven: evaluation October 2016 and November 2020.
- Advanced Non Life Insurance Mathematics: teaching evaluation 2012-2013, 2014-2015, 2017-2018.
- Data Science for Non Life Insurance: teaching evaluation 2019-2020.
- Advanced Life Insurance Mathematics: teaching evaluation 2014-2015, 2017-2018, 2019-2020.
- Loss Models: teaching evaluation 2014-2015 and 2017-2018.

Educational technology and teaching initiatives

2022 Junior College *Kansrekening en financieel waarderen: de actuaris aan het werk*, with Kristien Smedts, see here.

2018 Development of online course on Valuation of Life Insurance Products with R on the DataCamp platform, with Roel Verbelen (at this moment: 7,070 registered users).

2015 *Introduction to actuarial mathematics for high school students* (as part of the *vrije ruimte wiskunde*), developed and taught with ir. Nora Van Breusegem, in cooperation with Mater Dei Institute in Leuven.

Keynote lectures

2024 *Responsible actuarial learning*, Joint Colloquium, Brussels, October 15.

The short-term association between environmental variables and mortality: evidence from Europe, Climate change seminar (online), Actuarial society of South Africa, September 10.

Responsible actuarial learning, Annual meeting of the Swiss actuarial association, Bern, September 7.

Insights from fine-grained mortality data, Insurance data science conference, Stockholm University, June 17.

2023 *Neural networks for insurance pricing with frequency and severity data: a benchmark study from data preprocessing to technical tariff.* Actuarial afternoon by the Institute of Actuaries in Belgium, December 12.

Insurance pricing with hierarchically structured data. AG Insurance Campus, November 28.

Responsible actuarial learning. AG Jaarcongres, Bussum, the Netherlands, May 24.

Responsible actuarial learning. Inaugural lecture Katrien Antonio, University of Amsterdam, the Netherlands, April 20.

Assessing the impact of the COVID-19 mortality shock on a stochastic multi-population mortality model. Perspectives on actuarial risks in talks of young researchers, Valencia, February 2.

2022 Invited speaker *Hoe data science de grenzen van het actuariaat verlegt*, Dag van de actuaris, October 6.

Invited speaker *Bridging the gap between pricing and reserving with an occurrence and development model for non-life insurance claims*, CIRM Marseille, MListral conference, September 29.

Invited speaker *Assessing the impact of the COVID-19 shock on a stochastic multi-population mortality model*, AG Insurance Campus, September 27, see here.

Invited speaker *Bridging the gap between pricing and reserving with an occurrence and development model for non-life insurance claims*, Convention A, Deutsche Gesellschaft für Versicherungs- und Finanzmathematik, September 20.

Invited speaker *Bridging the gap between pricing and reserving with an occurrence and development model for non-life insurance claims*, Machine learning and Monte-Carlo in Insurance and Risk Management, TU Munich, Munich, September 15.

Invited speaker *The added value of dynamically updating motor insurance prices with telematics collected driving behavior data*, L2 workshop, Lausanne, June 13.

Keynote speaker *The added value of dynamically updating motor insurance prices with telematics collected driving behavior data*, European Actuarial Academy, e-conference on Data Science and Data Ethics, May 12.

2021   Keynote speaker *Insurance pricing analytics: an academic perspective*, FinTech Talks, FSMA, Brussels, May 7.

Keynote speaker *Boosting insights in insurance tariff plans with machine learning methods*, Risk Analytics Symposium, University of Illinois at Urbana-Champaign, March 27.

2020   Keynote speaker *Data science in insurance*, Ergo headquarters, Dusseldorf, December 3-4.

Keynote speaker *Insurance: Mathematics and Economics* conference, Montreal, July 6-8. (Postponed due to covid-19 pandemic.)

2019   Keynote speaker *Addicted to De-Risking seminar*, Lisbon School of Economics and Management, Universidade de Lisboa, November 12.

2018   Keynote speaker *Scientific day of the DGVFM*, Ulm, October 24-26.

Keynote speaker *Insurtech*, Postacademische vorming, KULAK, October 2.

Keynote speaker *Annual meeting of the Schweizerische Aktuarvereinigung*, Zurich, August 31.

Keynote speaker *Actuarial Research Conference*, University of Western-Ontario in London, Canada, August 9.

Keynote speaker *ASTIN Colloquium*, Berlin, Germany, June 4-6.

Keynote speaker *AfMath: the interplay between actuarial and financial mathematics*, Brussels, Belgium, February 8.

2017   Keynote speaker *5th R in Insurance conference*, ENSEA, Paris, June 8.

Keynote speaker *Scientific day of the DGVFM*, Berlin, April 26.

Keynote speaker *Workshop on pricing*, Quantact, Montreal, March 24.

2016   Keynote speaker *Leuven Statistics Days*, KU Leuven, Leuven, October 20.

Keynote speaker *Big Data, digitale innovatie en de gevolgen voor de verzekeringssector*, Amsterdam Center for Insurance Studies, Amsterdam, October 18.

Keynote speaker *3rd conference of the European Actuarial Journal*, ISFA Lyon, France, September 6-8.

Keynote speaker *Structured and Unstructured Data - Insurance Analytics, Products and Risk Management of the Future*, Deutsche Gesellschaft für Versicherungs- und Finanzmathematik, Hannover, Germany, June 16.

Seminars and invited talks

2023   *Neural networks for insurance pricing with frequency and severity data: a benchmark study from data preprocessing to technical tariff.* Technical seminar for CNP Assurances, November 15.

Bridging the gap between pricing and reserving with an occurrence and development model for non-life insurance claims. Webinar for ASTIN Bulletin, November 6.

2022   *Bridging the gap between pricing and reserving with an occurrence and development model for non-life insurance claims.* Quantact, Montreal, online seminar, December 16.

Bridging the gap between pricing and reserving with an occurrence and development model for non-life insurance claims. University of Melbourne, online seminar, November 17.

Invited speaker *Research on insurance pricing and reserving with ML methods* and *Assessing the impact of the COVID-19 mortality shock on a stochastic multi-population mortality model*, technical seminar CNP Assurances, Paris, October 21.

The added value of dynamically updating motor insurance prices with telematics collected driving behavior data. Eurapco, online seminar, September 7.

The added value of dynamically updating motor insurance prices with telematics collected driving behavior data. Aix Marseille School of Economics, Marseille, March 15.

2021 *Demystifying neural networks and their use in actuarial tasks.* CNP Assurances, Paris, December 16.

De relatie tussen extreem weer en klimaatverandering. Metaforum, KU Leuven, December 2.

The added value of dynamically updating motor insurance prices with telematics collected driving behavior data. University of Waterloo, Canada, November 26.

Insurance fraud analytics. a.s.r de nederlandse verzekeringsmaatschappij voor alle verzekeringen, October 14.

The added value of dynamically updating motor insurance prices with telematics collected driving behavior data. Workshop insurance analytics, Allianz & KU Leuven, October 8.

Demystifying neural networks and their use in actuarial tasks. AG Insurance Risk and Actuary Seminar, Brussels, June 17.

Producing mortality projections for the Belgian population: a stochastic multi-population standard. ORSTAT and Statistics seminar series, KU Leuven, April 22.

2020 *Claims reserving in non-life insurance: old and new adventures.* One World Actuarial Research Seminar, online, June 17, `http://www.maths.usyd.edu.au/u/munir/owars/`.

Boosting insights in insurance tariff plans with tree-based machine learning methods. AG Insurance Risk and Actuary Seminar, Brussels, June 16.

2019 *Like actuaries do ... an (opinionated) introduction to actuarial principles and calculations.* Leergang aansprakelijkheidsrecht, Universiteit Antwerpen, Antwerpen, December 7.

Knowing me, knowing you: actuarial science meets data science. Stockholms Universitet, Sweden, December 3.

A generalised reserving model: bridging the gap between pricing and individual reserving. Institute of Advanced Study, Amsterdam, November 29.

Insurance analytics: an academic perspective. Postgraduaat big data and analytics for business, KU Leuven, Leuven, November 8.

Individual claims reserving. AG Insurance Risk and Actuary Seminar, Brussels, October 22.

Social network analysis for insurance fraud detection. Ageas pricing seminar, Brussels, October 8-10.

Supervised learning with multi-type/level features. Ageas pricing seminar, Brussels, October 8-10.

Data analytics for claims reserving. XpertSessie, Nationale Nederlanden, The Hague, March 19.

2018 *Tree-based machine learning for insurance pricing.* Ageas pricing seminar, Malaga, Spain, November 15.

Insurance analytics: on risk factors in P&C pricing and telematics insurance. Postgraduaat big data and analytics for business, KU Leuven, Leuven, October 19.

On multilevel models in insurance analytics. Retirement workshop for prof. Edward (Jed) Frees, Madison, Wisconsin, October 12-13.

Research lines on mortality modeling. Institute of Actuaries in Belgium, Brussels, June 12.

Using risk factors in P&C insurance pricing. A data driven strategy with GAMs, regression trees and GLMs. Conference Chairs Days, Paris, June 11.

Unraveling relevant risk factors explaining pension fund mortality. A case study in the Netherlands. Brown bag seminar AFI, KU Leuven, Leuven, May 3.

Telematics insurance. AG Insurance risk academy, Brussels, April 26.

Spring school telematics insurance. Koninklijk Actuarieel Genootschap, Zeist, March 22.

Insurance analytics: on risk factors in P&C pricing and telematics insurance. Postgraduaat big data and analytics for business, KU Leuven, Leuven, February 23.

What actuaries do . . . a selection of research lines. Leergang aansprakelijkheidsrecht, Universiteit Antwerpen, Antwerpen, January 16.

2017 *Risk factor selection and binning in insurance: data driven strategies* Ageas pricing seminar, Lisbon, Portugal, September 21.

Unraveling the predictive power of telematics data in car insurance pricing. Université de Lausanne, Lausanne, Switzerland, July 7.

Unraveling the predictive power of telematics data in car insurance pricing. Heriot Watt University, Edinburgh, June 22.

Unraveling the predictive power of telematics data in car insurance pricing. University of Amsterdam, Amsterdam, June 2.

Unraveling the predictive power of telematics data in car insurance pricing. New Perspectives in Transportation - Big Data Telematics towards Usage Based Insurance, Barcelona, May 4.

Unraveling the predictive power of telematics data in car insurance pricing. Scientific day of the DGVFM, Berlin, April 26.

Recent developments in claims reserving. Argenta, Antwerp, March 28 and 31.

Unraveling the predictive power of telematics data in car insurance pricing. Themadag Kring Schade: van data naar meer. Wageningen, the Netherlands, March 30.

Unraveling the predictive power of telematics data in car insurance pricing. Quantact pricing workshop, Concordia University, Montreal, March 24.

Insuring cars: Risk drivers in an era of telematics and autonomous vehicles. 3th Clinic European Financial Law, KU Leuven Campus Brussel, Brussels, March 3.

2016 *Using risk factors in general insurance pricing: a data driven strategy with GAMs, regression trees and GLMs.* Talk in the *Statistical modelling in insurance* (host: Vali Asimit, Cass Business School, City University, London) at CFE/ERCIM 2016, Technical University Sevilla, December 10.

Actuaries and predictive modeling: past, present and future. Covea Research Chair, Covea, Paris, November 28.

Insurance analytics: past, present and future. Postgraduaat Big Data, KU Leuven, October 21.

A statistical modeling approach to pricing car insurance with telematics data. Keynote talk during the Leuven Statistics Days, KU Leuven, October 20.

Actuaries and predictive modeling: past, present and future. ACIS symposium on Big Data, digitale innovatie en de gevolgen voor de verzekeringssector, Amsterdam, October 18.

Unravelling the predictive power of telematics data in car insurance. Ageas pricing seminar, Brussels, September 30.

Using risk factors in general insurance pricing: a data driven strategy with GAMs, regression trees and GLMs. Ageas CE workshop, Brussels, September 28.

Actuaries and predictive modeling: past, present and future 3rd European Actuarial Journal conference, Lyon, September 6.

On mortality modeling and forecasting with multi-population data. Risk and insurance seminar, UW Madison, August 2.

2015   *Micro–level stochastic loss reserving for general insurance: a multi-state approach with flexible payment distributions.* Talk in the *Econometric challenges in risk management* (host: prof. Laura Spierdijk, RUG) at CFE/ERCIM 2015, University College London (UK), December 12.

Micro–level stochastic loss reserving for general insurance: a multi-state approach with flexible payment distributions. Ageas CE workshop on reserving in general insurance, Brussels, December 9.

A Bayesian joint model for population and portfolio specific mortality. Brown bag seminar, KU Leuven, December 3.

Micro–level stochastic loss reserving for general insurance: a multi-state approach with flexible payment distributions. (host: prof. H.J. Albrecher) Université de Lausanne, Lausanne, Switzerland, October 31.

Bayesian Poisson log-bilinear models for mortality projections with multiple populations. Quantact research seminar, UQAM, Montreal, August 3.

Micro-level loss reserving. Seminar series in mathematical statistics, Stockholm University, Sweden, May 27.

The AG2014 and IA|BE 2015 mortality projection models. Guest lecture at RUG (host: prof. Laura Spierdijk), Groningen, March 18.

The IA|BE 2015 mortality projection model. Mortality forum IA|BE, Brussels, February 26.

2014   *The AG 2014 mortality projection model: a bridge between actuarial theory and practice.* Brown bag seminar, KU Leuven, November 27.

Loss modelling with mixtures of Erlang distributions. Workshop on risk management in insurance. Faculty of Economics and Business, University of Barcelona, July 16.

Reserving methods for individual claim data. (host: prof. A. Montanari) Statistics seminar, University of Bologna, June 5.

Individual loss reserving using paid–incurred data. Brown bag seminar, KU Leuven, April 3.

Live long and prosper: actuaries and mortality forecasts. Colloquium for the department of mathematics, KU Leuven, February 28.

2013   *Micro level stochastic loss reserving for general insurance.* Talk in the *actuarial statistics session* (host: prof. Tim Verdonck) at ERCIM 2013, University College London (UK), December 15.

Stochastische schadereservering op microniveau. 50 jaar ASTIN. Verleden, heden en toekomst. (with H.J. Plat), Celebrating 50 years of ASTIN The Netherlands, Soest, October 29.

Individual loss reserving with the multivariate skew normal framework. Talk in the *claims reserving session* (host: prof. Mario Wüthrich, ETH) at the Cramér Symposium in Insurance Mathematics, Stockholm University (Sweden), June 11-14.

2012   *Micro–level stochastic loss reserving.* Seminar at Cass Business School, City University (London), October 24.

Micro–level stochastic loss reserving. Statistics seminar, Department of Mathematics, KU Leuven, October 18.

Stochastic loss reserving in non–life insurance. Lecture in the framework of the KU Leuven Actuarial Contact Program (ACP), May 14.

2011   *A micro–model for stochastic loss reserving.* Workshop in actuarial science, University of Piraeus, Piraeus (Greece), October 14.

An overview of stochastic mortality models. Lecture at AG Insurance in the framework of the AG Insurance Chair on health insurance, Brussels, September 15.

A micro–model for stochastic loss reserving. Eurandom workshop on Actuarial and Financial Statistics, August 28.

A multi–level analysis of intercompany claim counts. Statistics Canada 2011, Montreal (Canada), July 3.

Stochastic mortality models. Lecture in the framework of the KU Leuven Actuarial Contact Program (ACP), June.

2010 A micro–model for IBNR and RBNS loss reserving. Invited seminar at Technical University of Lisbon, Lisbon (Portugal), September 16.

A micro–model for IBNR and RBNS loss reserving. University of Amsterdam, KAFEE Lunch Seminar, May 10.

A micro–model for IBNR and RBNS loss reserving. Invited seminar at University of Oldenburg, Mathematical Institute, Oldenburg (Germany), April 14.

2009 Credibiliteit voor de hedendaagse schadeactuaris: een bruikbare interpretatie van een actuariële hoeksteen. ASTIN day Dutch Actuarial Association, Amsterdam (The Netherlands), November 5.

Claims reserving methods in insurance: from macro to micro Models. Deutsche Aktuar Akademie (DAA) Workshop, Loccum (Germany), October 16.

A hierarchical model for micro–level stochastic loss reserving. University of Barcelona, Barcelona (Spain), October 1.

2008 A multilevel analysis of intercompany data on claim counts. University of Waterloo, Waterloo (Canada), December 2.

A multilevel analysis of intercompany data on claim counts. AFI (Accountancy–Finance–Insurance) department, KU Leuven, Leuven (Belgium), May 5.

2007 Statistical tools for non-life insurance. Centrum voor Verzekeringsstatistiek (Center for Insurance Statistics), The Hague (The Netherlands), November 21.

Hierarchical modelling of multilevel claim statistics. Workshop on Integrated Risk Modeling, Tilburg University, Tilburg (The Netherlands), April 12.

2006 Hierarchical modelling of multilevel claim count statistics. Mathematics and its Applications Seminar, University of Antwerp, Antwerp (Belgium), March 16.

Hierarchical modelling of multilevel claim count statistics. Statistics Seminar, Leuven (Belgium), December 15.

Using mixed models in actuarial statistics. 1st Statistical Day at KU Leuven, Leuven (Belgium), June 12.

Recent developments in claims reserving. School of Business, University of Wisconsin in Madison, Madison (USA), June 7.

Actuarial statistics and mixed models: applications and opportunities. Econometrics and Statistics Seminar, Tilburg University, Tilburg (The Netherlands), April 12.

2005 Let's go Bayesian: an actuarial point of view. Statistics Seminar, KU Leuven, Leuven (Belgium), November 25.

Let's go Bayesian: an actuarial point of view. 3rd Young Researchers Day, Université Catholique de Louvain-la-Neuve, Louvain-la-Neuve (Belgium), December 2.

Applications of mixed models in actuarial statistics. Statistics Seminar, KU Leuven, Leuven (Belgium), March 4.

Announcements at national and international conferences

2024 Reducing the dimensionality and granularity in hierarchical categorical variables, by Wilsens, P. with Claeskens, G. (contr.), Antonio, K. (contr.). Presented at 27th Insurance: Mathematics and Economics conference, Chicago, July 8-11.

Reducing the dimensionality and granularity in hierarchical categorical variables, by Wilsens, P., Antonio, K. (contr.), Claeskens, G. (contr.). Presented at the Insurance Data Science conference, Stockholm, June 17-18.

he short-term association between environmental variables and mortality: evidence from Europe., by Robben, J. with Antonio, K. (contr.), Kleinow, T. (contr.). Presented at 27th Insurance: Mathematics and Economics conference, Chicago, July 8-11.

2023 *Catastrophe risk in a stochastic multi-population mortality model*, by Robben, J. with Antonio, K., 26th International Congress on Insurance: Mathematics and Economics, Edinburgh, United Kingdom, 04-07 Jul 2023.

Regime switch in a stochastic multi-population mortality projection model, by Robben, J. with Antonio, K., Modelling and Societal Impact of Longevity and Ageing Conference (RCLR), Amsterdam, the Netherlands, 25-26 May 2023.

Neural networks for insurance pricing with frequency and severity data: a benchmark study from data preprocessing steps to technical tariff, by Holvoet, F., Antonio, K. (contr.), Insurance Data Science conference, London, 15 Jun-16 Jun 2023.

2022 *Dealing with mortality shocks in a stochastic multi-population mortality model*, by Robben, J. with Antonio, K. European Actuarial Journal Conference, Tartu, Estonia, 22 Aug - 24 Aug 2022.

A hierarchical reserving model for reported non-life insurance claims, by Robben, J. with Crevecoeur, J. (contr.) and Antonio, K. (contr.), Insurance Data Science Conference, Università Cattolica del Sacro Cuore - Milan, 15-17 Jun 2022.

Neural networks for frequency-severity modelling: a benchmark study from data preprocessing steps to technical tariff, by Holvoet, F., Antonio, K. (contr.), European Actuarial Journal Conference 2022, Tartu, Estonia, 22 Aug-24 Aug 2022.

2021 *The skin-in-the-game bond: a novel sustainable capital instrument.* by E. Verschueren, with K. Antonio, J. De Spiegeleer and W. Schoutens, United as One, 24th Insurance: Mathematics and Economics conference, online, July 5-9.

Bridging the gap between pricing and reserving with an occurrence and development model for non-life insurance claims. by J. Crevecoeur, with K. Antonio, United as One, 24th Insurance: Mathematics and Economics conference, online, July 5-9.

Insurance pricing with hierarchically structured data: an illustration with a workers' compensation insurance product by B. De Cock Campo, with K. Antonio, United as One, 24th Insurance: Mathematics and Economics conference, online, July 5-9.

The added value of dynamically updating motor insurance prices with telematics collected driving behavior data. by R. Henckaerts, with K. Antonio, United as One, 24th Insurance: Mathematics and Economics conference, online, July 5-9.

2019 *Individual claims reserving with claim specific covariates.* by J. Crevecoeur, with K. Antonio, Insurance: Mathematics and Economics conference, Munich, July 10-12.

Regularization methods for multi-population mortality modeling. by S. Devriendt, with K. Antonio and M. Vellekoop, Insurance: Mathematics and Economics conference, Munchen, July 10-12.

Fraud detection in insurance with social network analytics. by M. Óskarsdóttir, with K. Antonio, B. Baesens, T. Reynkens, Insurance: Mathematics and Economics, Munchen, July 10-12.

Quantifying longevity gaps using micro-level lifetime data. by F. Van Berkum, with K. Antonio and M. Vellekoop, Insurance: Mathematics and Economics, Munchen, July 10-12.

Benchmark study on the use of tree-based machine learning for insurance pricing. by R. Henckaerts, with K. Antonio and M.P. Côté, Insurance: Mathematics and Economics conference, Munchen, July 10-12.

Individual claims reserving with claim specific covariates. by J. Crevecoeur, with K. Antonio, Insurance data science conference, ETH Zurich, June 14.

Fraud detection in insurance with social network analytics. by M. Óskarsdóttir, with K. Antonio, B. Baesens, T. Reynkens, Insurance data science conference, ETH Zurich, June 14.

2018 *Modeling the future development of IBNR and RBNS claims in the presence of covariates.* CFE/ERCIM 2018, Pisa, December 16.

Network-Based Fraud Detection in Vehicle Insurance using GOTCHA! by T. Reynkens, with K. Antonio and B. Baesens, EAJ 2018, Leuven, September 11.

Sparsity with Multi-Type Lasso Penalties by S. Devriendt, with K. Antonio, T. Reynkens and R. Verbelen, EAJ 2018, Leuven, September 11.

Tree-Based Machine Learning for Insurance Pricing by R. Henckaerts, with K. Antonio, M.P. Côté and R. Verbelen, EAJ 2018, Leuven, September 11.

A Time Change Strategy to Model Reporting Delay Dynamics in Claims Reserving. EAJ 2018, Leuven, September 11.

Unraveling Relevant Risk Factors Explaining Pension Fund Mortality: a Case Study in the Netherlands by F. Van Berkum, with K. Antonio and M. Vellekoop, EAJ 2018, Leuven, 2018.

Individual Reserving with Claim Specific Covariates by J. Crevecoeur, with K. Antonio and R. Verbelen, EAJ 2018, Leuven, September 11.

Sparsity with multi-type lasso penalties by T. Reynkens, with S. Devriendt, K. Antonio and R. Verbelen, Insurance data science, Cass Business School, London, July 16.

Tree-based machine learning for insurance pricing by R. Henckaerts, with K. Antonio, M.P. Côté and R. Verbelen, 22nd Insurance: Mathematics and Economics conference, UNSW, Sydney, Australia, July 15-18.

Tree-based machine learning for insurance pricing by R. Henckaerts, with K. Antonio, M.P. Côté and R. Verbelen, useR! 2018, Brisbane, Australia, July 10-13.

2017 *A time change strategy to model reporting delay dynamics in claims reserving* by J. Crevecoeur, with K. Antonio and R. Verbelen, L2 Perspectives in actuarial science, insurance and risk theory, PhD workshop KU Leuven and Cass Business School, London, December 19.

Sparse modeling of risk factors in insurance analytics by S. Devriendt, with K. Antonio, T. Reynkens and R. Verbelen, L2 Perspectives in actuarial science, insurance and risk theory, PhD workshop KU Leuven and Cass Business School, London, December 19.

A data driven strategy for the construction of tariff classes in P&C insurance by R. Henckaerts, with K. Antonio, M. Clijsters and R. Verbelen, CFE/ERCIM 2017, Birkbeck and University of London, London, December.

A time change strategy to model reporting delay dynamics inclaims reserving by J. Crevecoeur, with K. Antonio and R. Verbelen, CFE/ERCIM 2017, Birkbeck and University of London, London, December.

Sparse modeling of risk factors in insurance analytics by S. Devriendt, with K. Antonio, T. Reynkens and R. Verbelen, CFE/ERCIM 2017, Birkbeck and University of London, London, December.

Using risk factors in insurance analytics data driven strategies Chaire Dami workshop, UCLouvain, Louvain-la-Neuve, September 15.

Sparse modeling of risk factors in insurance analytics by S. Devriendt, with K. Antonio and R. Verbelen, 21st Insurance: Mathematics and Economics conference, TU Vienna, July 3-5.

Modeling reporting delay dynamics for claims reserving by J. Crevecoeur, with K. Antonio and R. Verbelen, 21st Insurance: Mathematics and Economics conference, TU Vienna, July 3-5.

A computational framework for sparse modeling with different types of predictors by S. Devriendt, with K. Antonio and R. Verbelen, Workshop on Sparsity in Applied Mathematics and Statistics, Brussels, June 1.

Modelling reporting delay dynamics for claims reserving by J. Crevecoeur, with K. Antonio and R. Verbelen, PARTY 2017, Switzerland, January 8-13.

Using risk factors in P&C insurance pricing: a data driven strategy with GAMs, regression trees and GLMs. by R. Henckaerts, with K. Antonio, M. Clijsters and R. Verbelen, PARTY 2017, Switzerland, January 8-13.

Producing the Dutch and Belgian mortality projections: a stochastic multi-population standard. by S. Devriendt, with K. Antonio, PARTY 2017, Switzerland, January 8-13.

2016   *Unravelling the predictive power of telematics data in car insurance pricing* by Roel Verbelen, with Katrien Antonio and Gerda Claeskens. Talk in the *Econometrics and statistics for financial risk management* (host: Katrien Antonio, KU Leuven and University of Amsterdam) at CFE/ERCIM 2016, Technical University Sevilla, December 11.

Sparse modelling of risk factors for insurance analytics by Sander Devriendt, with Katrien Antonio, Edward (Jed) Frees and Roel Verbelen. Talk in the *Econometrics and statistics for financial risk management* (host: Katrien Antonio, KU Leuven and University of Amsterdam) at CFE/ERCIM 2016, Technical University Sevilla, December 11.

Global fits using splicing for censored data: mixed Erlang and extreme value distributions by T. Reynkens, with R. Verbelen, J. Beirlant and K. Antonio, European Actuarial Journal Conference, Lyon, France.

A statistical modeling approach for car insurance pricing with telematics data by R. Verbelen, with K. Antonio, G. Claeskens. European Actuarial Journal Conference (EAJ 2016), Lyon, France.

A statistical modeling approach for pricing car insurance with telematics data. 51st Actuarial Research Conference. University of Minnesota and University of St. Thomas, Minneapolis (USA), July 27-30.

A statistical modeling approach for pricing car insurance with telematics data. 20th International Conference on Insurance: Mathematics and Economics. Georgia State University, Atlanta (USA), July 24-27.

2015   *Profit maximizing logistic regression modeling for customer churn prediction.* IEEE International Conference on Data Science and Advanced Analytics (DSAA' 2015). Paris (France), 19-21 October 2015. (Stripling, E. with vanden Broucke, S., Antonio, K., Baesens, B., Snoeck, M.)

On the transferability of reserves in lifelong health insurance contracts. ASTIN Colloquium. Sydney, Australia, 23-27 August 2015. (E. Godecharle with Dhaene, J., Antonio, K., Denuit, M.)

Multivariate mixtures of Erlangs for density estimation under censoring and truncation. International Biometric Society Channel Network Conference 2015 (IBS Channel 2015), Nijmegem (the Netherlands), 20-22 April 2015. (R. Verbelen with Antonio, K., Claeskens, G.)

Modeling dependent losses under censoring and truncation using multivariate mixtures of Erlangs. Actuarial Research Conference 2015 (ARC 2015), Toronto (Canada), 5-8 August 2015. (R. Verbelen with K. Antonio, G. Claeskens.)

Bayesian Poisson log-bilinear models for mortality projections with multiple populations. R in Insurance 2015, Amsterdam School of Economics, Amsterdam, The Netherlands, 29 June 2015. (Bardoutsos, A. with Antonio, K., Ouburg, W.)

Multivariate mixtures of Erlangs for density estimation under censoring and truncation. IBioStat, Hasselt (Belgium), 30 January 2015. (Verbelen, R. with Antonio, K., Claeskens, G.)

Loss modelling using mixtures of Erlang distributions. Actuarial and Financial Mathematics Conference (AFMathConf 2015), Brussels (Belgium), February 5-6. (R. Verbelen, with K. Antonio and G. Claeskens)

Modeling dependent losses under censoring and truncation using multivariate mixtures of Erlangs. Perspectives in Actuarial Risks in Talks of Young researchers (PARTY 2015), Liverpool, January 11-16. (R. Verbelen, with K. Antonio and G. Claeskens)

Bayesian Poisson log-bilinear models for mortality projections with multiple populations. Perspectives in Actuarial Risks in Talks of Young researchers (PARTY 2015), Liverpool, January 11-16. (A. Bardoutsos, with K. Antonio and W. Ouburg)

Bayesian portfolio specific mortality. Perspectives in Actuarial Risks in Talks of Young researchers (PARTY 2015), Liverpool, January 11-16. (F. Van Berkum, with K. Antonio and M.H. Vellekoop)

2014 *Modelling dependence under censoring and truncation using multivariate mixtures of Erlang distributions.* International Conference on Computational Statistics (COMPSTAT 2014), Geneva (Switzerland), August 19-22. (R. Verbelen, with K. Antonio and G. Claeskens)

Loss modelling with mixtures of Erlang distributions. European Actuarial Journal (EAJ) Conference, TU Vienna (Austria), September 10-12. (R. Verbelen, with K. Antonio and G. Claeskens)

Modelling dependence under censoring and truncation using multivariate mixtures of Erlang distributions. Meeting of the Belgian Statistical Society (BSS), Louvain-la-Neuve (Belgium), November 5-7. (R. Verbelen, with K. Antonio and G. Claeskens)

Loss modeling with mixtures of Erlang distributions. R in insurance, Cass Business School, London, July 14. (R. Verbelen, with K. Antonio)

Reserving by conditioning on markers of individual claims: a case study using historical simulation. R in insurance, Cass Business School, London, July 14. (E. Godecharle, with K. Antonio)

2013 *Fitting mixtures of Erlangs to censored and truncated data using the EM algorithm.* Anniversary of LStat, Leuven (Belgium), December 13-14. (R. Verbelen, with K. Antonio)

Individual loss reserving. CAS Loss Reserve Seminar. Boston, September 15-17.

Structural breaks in mortality rates, with an application to Dutch and Belgian data. International Congress on Insurance: Mathematics and Economics. Copenhagen, July 1-3. (F. Van Berkum, with K. Antonio and M.H. Vellekoop)

Revisiting Rosenlund's reserve by detailed conditioning method. International Congress on Insurance: Mathematics and Economics. Copenhagen, Denmark, July 1-3. (E. Godecharle, with K. Antonio)

Premium indexing in lifelong health insurance. ASTIN Colloquium. The Hague, The Netherlands, May 21-24. (W. Vercruysse, with J. Dhaene, M. Denuit, E. Pitacco and K. Antonio)

Individual claims reserving with the multivariate skew normal framework. ASTIN Colloquium. The Hague, The Netherlands, May 21-24.

Bayesian stochastic mortality models for two populations: A technical note on MCMC sampling. PanHellenic Statistics Conference. Piraeus, Greece, May 8-11. (A. Bardoutsos, with K. Antonio)

2012 *Structural breaks in mortality rates, with an application to Dutch and Belgian data.* Netspar Pension Day, Utrecht (The Netherlands), November 9. (F. Van Berkum, with K. Antonio and M.H. Vellekoop).

2010 *A Hierarchical Model for Micro–Level Stochastic Loss Reserving.* Actuarial and Financial Mathematics Conference, Brussels (Belgium), February 4.

2009 *A Hierarchical Model for Micro–Level Stochastic Loss Reserving.* 13th International Conference on Insurance: Mathematics and Economics, Istanbul (Turkey), May 28.

2007 *Hierarchical Modeling of Multilevel Claim Count Statistics.* 11th International Conference on Insurance: Mathematics and Economics, University of Piraeus (Greece), July 10.

Hierarchical Modelling of Multilevel Claim Counts. Workshop on *Statistical Inference for Dependent Data*, UHasselt, Hasselt (Belgium), April 26.

2006 *Dependence Modelling of Multilevel Claim Count Statistics.* 14th Annual Meeting of the Belgian Statistical Society, Houffalize (Belgium).

Semiparametric Regression Models for Claims Reserving and Credibility: the Mixed Model Approach. 10th International Congress on Insurance: Mathematics and Economics, Leuven (Belgium), July 18.

Actuarial Statistics with GLMMs and GAMMs. 4th Actuarial and Financial Mathematics Day, Brussels (Belgium), February 10.

2005 *Applications of Generalized Linear Mixed Models in Actuarial Statistics.* 9th International Congress on Insurance: Mathematics and Economics, Québec (Canada).

2004 *On the Use of Linear Mixed Models for Loss Reserving.* 8th International Congress on Insurance: Mathematics and Economics, Rome (Italy).

Teaching experience (detailed list)

Academic year 2023-2024

Actuarial Practice Cycle: Case on insurance analytics (Amsterdam Executive Master in Actuarial Science, Business School), University of Amsterdam (18h lectures) (course design, teaching, review of case work, feedback on case work)

Data science for Non–Life Insurance (6 ects, Master in Actuarial and Financial Engineering), KU Leuven (39h of teaching: lectures, computer labs using R and Python)

Advanced Life Insurance Mathematics (6 ects, Master in Actuarial and Financial Engineering), KU Leuven (39h of teaching: lectures, computer labs using R and exercise sessions)

Loss Models (6 ects, Master in Actuarial and Financial Engineering), KU Leuven (39h of teaching: lectures, exercises, computer demos)

Solvency of Financial Institutions (6 ects, Master in Actuarial and Financial Engineering), KU Leuven (course coordinator, course design)

Life Insurance Mathematics (6 ects, Bachelor in Econometrics, Actuarial Science and Operations Research), University of Amsterdam (24h of teaching: lectures, coordination of TAs and Canvas site, +200 students)

MSc thesis Master in Actuarial and Financial Engineering, KU Leuven (coordinator)

Promoter and work leader of the following projects: Helen Hommen (MAFE), Thibaud Bonte (MAFE), Arthur Vervoort (MAFE), Ana Medved (MAFE), Jing Yang (MAFE), Hamza Serry-Senhaji (MAFE), Li-Wen Tu (MAFE), Szu-Yin Wang (MAFE), Xingi Luo (UvA).

Academic year 2022-2023

Actuarial Practice Cycle: Case on insurance analytics (Amsterdam Executive Master in Actuarial Science, Business School), University of Amsterdam (30h lectures, in cooperation with Suris Kalloe (Allianz)) (course design, teaching, review of case work, feedback on case work)

Data science for Non–Life Insurance (6 ects, Master in Actuarial and Financial Engineering), KU Leuven (39h of teaching: lectures, computer labs using R and Python)

Advanced Life Insurance Mathematics (6 ects, Master in Actuarial and Financial Engineering), KU Leuven (39h of teaching: lectures, computer labs using R and exercise sessions)

Loss Models (6 ects, Master in Actuarial and Financial Engineering), KU Leuven (39h of teaching: lectures, exercises, computer demos)

Solvency of Financial Institutions (6 ects, Master in Actuarial and Financial Engineering), KU Leuven (course coordinator, course design)

Life Insurance Mathematics (6 ects, Bachelor in Econometrics, Actuarial Science and Operations Research), University of Amsterdam (24h of teaching: lectures, coordination of TAs and Canvas site, +200 students)

MSc thesis Master in Actuarial and Financial Engineering, KU Leuven (coordinator)

Promoter and work leader of the following projects: Christophe Nozaradan (MAFE), Rob Beckers (MAFE), Sebastian Beikircher (MAFE), Katherine Sarapata (MAFE), Sarah Verplaetse (MAFE), Mufan Cheng (MAFE), Liesse Doms (MAFE), Saad Moussaid (MAFE), Boonya Chivapong (MAFE).

Academic year 2021-2022

Actuarial Practice Cycle: Case on insurance analytics (Amsterdam Executive Master in Actuarial Science, Business School), University of Amsterdam (30h lectures, in cooperation with dr Bram Wouters) (course design, teaching, review of case work, feedback on case work)

Data science for Non–Life Insurance (6 ects, Master in Actuarial and Financial Engineering), KU Leuven (39h of teaching: lectures, computer labs using R and Python)

Advanced Life Insurance Mathematics (6 ects, Master in Actuarial and Financial Engineering), KU Leuven (39h of teaching: lectures, computer labs using R and exercise sessions)

Loss Models (6 ects, Master in Actuarial and Financial Engineering), KU Leuven (39h of teaching: lectures, exercises, computer demos)

Solvency of Financial Institutions (6 ects, Master in Actuarial and Financial Engineering), KU Leuven (course coordinator, course design)

Life Insurance Mathematics (6 ects, Bachelor in Econometrics, Actuarial Science and Operations Research), University of Amsterdam (24h of teaching: lectures, coordination of TAs and Canvas site, +200 students)

MSc thesis Master in Actuarial and Financial Engineering, KU Leuven (coordinator)

Promoter and work leader of the following projects: Timo Anteunis (MAFE), Nora Bentaleb (MAFE), David Degraeve (MAFE), Robin Goris (MAFE), Yelle Hunninck (MAFE), Zakaria El Faroussi (MAFE), Sishing Liu (MAFE), Leni Peeters (MAFE), Diana Rosales Meseguer (MAFE), Arne Vaes (MAFE), Karel van der Steen (MAFE), Christophe Nozaradan (MStats & Data Science), Jonas Fillée (MWisk), Ekaterina Dimitrova (UvA).

Academic year 2020-2021

Actuarial Practice Cycle: Case on insurance analytics (Amsterdam Executive Master in Actuarial Science, Business School), University of Amsterdam (30h lectures, in cooperation with dr Bram Wouters) (course design, teaching, review of case work, feedback on case work)

Data science for Non–Life Insurance (6 ects, Master in Financial and Actuarial Engineering), KU Leuven (39h of teaching: lectures, computer labs using R)

Advanced Life Insurance Mathematics (6 ects, Master in Financial and Actuarial Engineering), KU Leuven (39h of teaching: lectures, computer labs using R and exercise sessions)

Loss Models (6 ects, Master in Verzekeringen), KU Leuven (39h of teaching: lectures, exercises, computer demos)

Life Insurance Mathematics (6 ects, Bachelor in Econometrics, Actuarial Science and Operations Research), University of Amsterdam (24h of teaching: lectures, coordination of TAs and Canvas site, +200 students)

MSc thesis Master in Actuarial and Financial Engineering, KU Leuven (coordinator)

Promoter and work leader of the following projects: Simon Gielis (MAFE), Adriaan Decq (MAFE), Qusai AM Iwidat (MAFE), Elien Baeten (MAFE), Jonathan Sarteel (MAFE), Claudio Olivelli (MAFE), Lucky Mohanty (MAFE), Louis D'hiet (MAFE), Kevin Vervliet (MAFE), Gilles Goemaere (MAFE), Remco Bruinsma (UvA), Siebren Atsma (UvA), Justin Kersten (UvA).

Academic year 2019-2020

Actuarial Practice Cycle: Case on insurance analytics (Amsterdam Executive Master in Actuarial Science, Business School), University of Amsterdam (30h lectures, in cooperation with dr Bram Wouters) (course design, teaching, review of case work, feedback on case work)

Data science for Non–Life Insurance (6 ects, Master in Financial and Actuarial Engineering), KU Leuven (39h of teaching: lectures, computer labs using R)

Advanced Life Insurance Mathematics (6 ects, Master in Financial and Actuarial Engineering), KU Leuven (39h of teaching: lectures, computer labs using R and exercise sessions)

Loss Models (6 ects, Master in Verzekeringen), KU Leuven (39h of teaching: lectures, exercises, computer demos)

Life Insurance Mathematics (6 ects, Bachelor in Econometrics, Actuarial Science and Operations Research), University of Amsterdam (24h of teaching: lectures, coordination of TAs and Blackboard site)

MSc thesis Master in Actuarial and Financial Engineering, KU Leuven (coordinator)

Promoter and work leader of the following projects: Simon Gielis (MMaths), Laurien Demeyere (MAFE), Evert Van den Heuvel (MAFE), Jens Robben (MAFE), Ine Fransen (MAFE), Katrien Van Boven (MAFE), Marie Michaelides (MAFE), Bram Torfs (MFAE), Carmen Vandenbosch (MAFE), Lotte Muylaert (MFAE), Felix Sangers (UvA), Basile Berg (UvA), Iris Nonneman (UvA), Koos Van Winden (UvA).

Academic year 2018-2019

Actuarial Practice Cycle: Case on disability insurance (Amsterdam Executive Master in Actuarial Science, Business School), University of Amsterdam (30h lectures, in cooperation with MSc Niels van der Laan, Milliman and MSc Pieter Bultena, PwC) (course design, teaching, review of case work, feedback on case work)

Actuarial Practice Cycle: Case on insurance analytics (Amsterdam Executive Master in Actuarial Science, Business School), University of Amsterdam (30h lectures, in cooperation with dr Bram Wouters) (course design, teaching, review of case work, feedback on case work)

Data science for Non–Life Insurance (6 ects, Master in Financial and Actuarial Engineering), KU Leuven (39h of teaching: lectures, computer labs using R)

Advanced Life Insurance Mathematics (6 ects, Master in Financial and Actuarial Engineering), KU Leuven (39h of teaching: lectures, computer labs using R and exercise sessions)

Loss Models (6 ects, Master in Verzekeringen), KU Leuven (39h of teaching: lectures, exercises, computer demos)

Life Insurance Mathematics (6 ects, Bachelor in Econometrics, Actuarial Science and Operations Research), University of Amsterdam (24h of teaching: lectures, coordination of TAs and Blackboard site)

MSc thesis Master in Financial and Actuarial Engineering, KU Leuven (coordinator)

MSc thesis Master in Verzekeringen, KU Leuven (coordinator)

MSc thesis Master in Actuarial and Financial Engineering, KU Leuven (coordinator)

Promoter and work leader of the following projects: Bavo Decock (MStats), Bram Torfs (MFAE), Thomas Goeman (MFAE), Lotte Muylaert (MFAE), Marsha Mertens (MAFE), Sofie Vanoirbeek (MAFE), Elke Gagelmans (MAFE), Marie Michaelides (MAFE), Robyn van Basten (UvA), Didier Quintius (UvA), Youssef Achnine (UvA).

Academic year 2017-2018

Actuarial Practice Cycle: Case on disability insurance (Amsterdam Executive Master in Actuarial Science, Business School), University of Amsterdam (30h lectures, in cooperation with MSc Niels van der Laan, Milliman and MSc Pieter Bultena, PwC) (course design, teaching, review of case work, feedback on case work)

Advanced Non–Life Insurance Mathematics (6 ects, Master in Financial and Actuarial Engineering), KU Leuven (39h of teaching: lectures, computer labs using R and SAS and exercise sessions)

Advanced Life Insurance Mathematics (6 ects, Master in Financial and Actuarial Engineering), KU Leuven (39h of teaching: lectures, computer labs using R and exercise sessions)

Loss Models (6 ects, Master in Verzekeringen), KU Leuven (39h of teaching: lectures, exercises, computer demos)

Life Insurance Mathematics (6 ects, Bachelor in Econometrics, Actuarial Science and Operations Research), University of Amsterdam (24h of teaching: lectures, coordination of TAs and Blackboard site)

Seminarie verzekeringen (6 ects, Master in Verzekeringen), KU Leuven (coordination, organizing guest lectures,. . .)

MSc thesis Master in Financial and Actuarial Engineering, KU Leuven (coordinator)

MSc thesis Master in Verzekeringen, KU Leuven (coordinator)

Promoter and work leader of the following projects: Bram Torfs (MVerz), Alexander France (MVerz), Hannes Huskic (MVerz), Lisa Van Gorp (MFAE), Marie Michaelides (BEng), Nathalie Hendrickx (MFAE), Robin Van Craen (MFAE), Myrthe Kellens (MVerz), Celine Oosterlinck (MVerz), Tine Huybrechts (MFAE), Maggie Westra (UvA), Jamie Kane (UvA).

Academic year 2016-2017

Actuarial Practice Cycle: Case on disability insurance (Amsterdam Executive Master in Actuarial Science, Business School), University of Amsterdam (30h lectures, in cooperation with MSc Wilbert Ouburg, Delta Lloyd and MSc Pieter Bultena, PwC) (course design, teaching, review of case work, feedback on case work)

Advanced Non–Life Insurance Mathematics (6 ects, Master in Financial and Actuarial Engineering), KU Leuven (39h of teaching: lectures, computer labs using R and SAS and exercise sessions)

Advanced Life Insurance Mathematics (6 ects, Master in Financial and Actuarial Engineering), KU Leuven (39h of teaching: lectures, computer labs using R and exercise sessions)

Loss Models (6 ects, Master in Verzekeringen), KU Leuven (39h of teaching: lectures, exercises, computer demos)

Inleiding Levenactuariaat (6 ects, Bachelor in Econometrics, Actuarial Science and Operations Research), University of Amsterdam (24h of teaching: lectures, coordination of TAs and Blackboard site)

Seminarie verzekeringen (6 ects, Master in Verzekeringen), KU Leuven (coordination, organizing guest lectures,. . .)

MSc thesis Master in Financial and Actuarial Engineering, KU Leuven (coordinator)

MSc thesis Master in Verzekeringen, KU Leuven (coordinator)

Promoter and work leader of the following projects: Myrthe Cras (MFAE), Liselotte Rens (MFAE), Bram Torfs (MVerz), Christophe Veyt (MVerz), Cedric Goovaerts (MVerz), Eugene Offerman (MVerz), Marc Van Houteghem (MVerz), Tine Huybrechts (MVerz), Nynke Gerards (UvA), Kerim Kes (UvA), Dylan Van Westen (UvA).

Academic year 2015-2016

Non–Life Insurance (Master in Insurance), University of Torino (10h lectures)

Actuarial Practice Cycle: Case on disability insurance (Amsterdam Executive Master in Actuarial Science, Business School), University of Amsterdam (30h lectures, in cooperation with MSc Wilbert Ouburg, Delta Lloyd and MSc Pieter Bultena, PwC) (course design, teaching, review of case work, feedback on case work)

Advanced Non–Life Insurance Mathematics (6 ects, Master in Financial and Actuarial Engineering), KU Leuven (39h of teaching: lectures, computer labs using R and SAS and exercise sessions)

Advanced Life Insurance Mathematics (6 ects, Master in Financial and Actuarial Engineering), KU Leuven (39h of teaching: lectures, computer labs using R and exercise sessions)

Inleiding Levenactuariaat (6 ects, Bachelor in Econometrics, Actuarial Science and Operations Research), University of Amsterdam (24h of teaching: lectures, coordination of TAs and Blackboard site)

Seminarie verzekeringen (6 ects, Master in Verzekeringen), KU Leuven (coordination, organizing guest lectures,...)

Loss Models (6 ects, Master in Verzekeringen), KU Leuven (39h of teaching: lectures, exercises, computer demos)

MSc thesis Master in Financial and Actuarial Engineering, KU Leuven (coordinator)

MSc thesis Master in Verzekeringen, KU Leuven (coordinator)

Promoter and work leader of the following projects: Myrthe Cras (MVerz), Liselotte Rens (MVerz), Bram Torfs (MVerz), Maarten Baeten (MVerz), Thomas Smits (MVerz), Olivier Vermassen (MFAE), Roel Henckaerts (MFAE), May Chung (UvA), Caroline Goedhart (UvA), Robert Kroon (UvA), Aart Valkhof (UvA), Martin Haringa (UvA), Nynke Gerards (UvA).

Academic year 2014-2015

Non–Life Insurance (Master in Insurance), University of Torino (10h lectures)

Actuarial Practice Cycle: Case on loss reserving (Amsterdam Executive Master in Actuarial Science, Business School), University of Amsterdam (30h lectures, in cooperation with Bart Kling, Towers Watson, Milliman, Addactis, Triple A, Posthuma Partners) (coordination, teaching)

Actuarial Practice Cycle: Case on disability insurance (Amsterdam Executive Master in Actuarial Science, Business School), University of Amsterdam (30h lectures, in cooperation with MSc Wilbert Ouburg, Delta Lloyd and MSc Christine de Haan, Delta Lloyd) (course design, teaching)

Advanced Non–Life Insurance Mathematics (6 ects, Master in Financial and Actuarial Engineering), KU Leuven (39h of teaching: lectures, computer labs using R and SAS and exercise sessions)

Advanced Life Insurance Mathematics (6 ects, Master in Financial and Actuarial Engineering), KU Leuven (39h of teaching: lectures, computer labs using R and exercise sessions)

Inleiding Levenactuariaat (6 ects, Bachelor in Econometrics, Actuarial Science and Operations Research), University of Amsterdam (72h of teaching: lectures, computer labs using MS Excel and exercise sessions)

Seminarie verzekeringen (6 ects, Master in Verzekeringen), KU Leuven (coordination, organizing guest lectures,...)

Verzekeringen niet-leven (6 ects, Master in Verzekeringen), KU Leuven (39h of teaching: lectures, exercises, computer demos)

MSc thesis Master in Financial and Actuarial Engineering, KU Leuven (coordinator)

MSc thesis Master in Verzekeringen, KU Leuven (coordinator)

Promoter and work leader of the following projects: Maxime Clijsters (MFAE), Hans Van Overloop (MFAE), Lieven Declercq (MFAE), Roeland Baeten (MVerz), Rachel Bonsel (UvA), Joost Michielsen (UvA), May Chung (UvA), Willeke de Tree (BSc, UvA), Cindy Brijs (BSc, UvA).

Academic year 2013-2014

Non–Life Insurance (Master in Insurance), University of Torino (10h lectures)

Actuarial Practice Cycle: Case on loss reserving (Amsterdam Executive Master in Actuarial Science, Business School), University of Amsterdam (30h lectures, in cooperation with Towers Watson, Milliman, Actuaris (France), Posthuma Partners) (coordination, teaching)

Advanced Non–Life Insurance Mathematics (6 ects, Master in Financial and Actuarial Engineering), KU Leuven (39h of teaching: lectures, computer labs using R and SAS and exercise sessions)

Advanced Life Insurance Mathematics (6 ects, Master in Financial and Actuarial Engineering), KU Leuven (21h of teaching: lectures, computer labs using R and exercise sessions) (with dr. Leen Teunen)

Inleiding Levenactuariaat (6 ects, Bachelor in Econometrics, Actuarial Science and Operations Research), University of Amsterdam (72h of teaching: lectures, computer labs using MS Excel and exercise sessions)

Seminarie verzekeringen (6 ects, Master in Verzekeringen), KU Leuven (coordination, organizing guest lectures,. . .)

MSc thesis Master in Financial and Actuarial Engineering, KU Leuven (coordinator)

MSc thesis Master in Verzekeringen, KU Leuven (coordinator)

Promoter and work leader of the following projects: Jasper Van Halewyck (UvA, MSc), Lianne Westinga (UvA, MSc), Vera Makhan (UvA, MSc), Wella Shindy (UvA, MSc), Rachel Bonsel (UvA, MSc), Dima Babykin (UvA, MSc), Raoul Lucas (UvA, MSc), Lennart Niezen (UvA, BSc), Robert Kroon (UvA, BSc), Toon Rogé (KU Leuven, MSc), Bruno De Laet (KU Leuven, MSc), Maxim Van Reybrouck & Piet Vanhuyse (KU Leuven, MSc), Jonas Deré (KU Leuven, MSc), Hans Van Overloop (KU Leuven, MSc), Lize Devolder (KU Leuven, MSc), Zoé Dressé (KU Leuven, MSc).

Academic year 2012-2013

Non–Life Insurance (Master in Insurance), University of Torino (10h lectures)

Actuarial Practice Cycle: Case on loss reserving (Amsterdam Executive Master in Actuarial Science, Business School), University of Amsterdam (30h lectures, in cooperation with Towers Watson, Milliman, Actuaris (France), Posthuma Partners) (coordination, teaching)

Advanced Non–Life Insurance Mathematics (6 ects, Master in Financial and Actuarial Engineering), KU Leuven (39h of teaching: lectures, computer labs using R and SAS and exercise sessions)

Advanced Life Insurance Mathematics (6 ects, Master in Financial and Actuarial Engineering), KU Leuven (21h of teaching: lectures, computer labs using R and exercise sessions) (with dr. Leen Teunen)

Inleiding Levenactuariaat (6 ects, Bachelor in Econometrics, Actuarial Science and Operations Research), University of Amsterdam (72h of teaching: lectures, computer labs using MS Excel and exercise sessions)

Seminarie verzekeringen (6 ects, Master in Verzekeringen), KU Leuven (coordination, organizing guest lectures,. . .)

MSc thesis Master in Financial and Actuarial Engineering, KU Leuven (coordinator)

MSc thesis Master in Verzekeringen, KU Leuven (coordinator)

Promoter and work leader of the following projects: Alexander Stolwijk (UvA, MSc), Wilbert Ouburg (UvA, MSc), Jasper Van Halewyck (UvA, MSc), Miriam Visser (UvA, MSc), Ibrahim Balci (UvA, MSc), Yorick Kuiper (UvA, BSc), Rachel Bonsel (UvA, BSc), Toon Rogé (KU Leuven, MSc), Bruno De Laet (KU Leuven, MSc), Lien Verpoorten (KU Leuven, Msc), Maxim Van Reybrouck & Piet Vanhuyse (KU Leuven, MSc), Siska De Pril & Laurence Verheye (KU Leuven, MSc), Marjolein Cooman (KU Leuven, MSc), Frederik Borgers (KU Leuven, MSc), Lise Ooms & Anne Boudewijns (KU Leuven, MSc), Jonas Deré (KU Leuven, MSc).

Academic year 2011-2012

Non–Life Insurance (Master in Insurance), University of Torino (10h lectures)

Inleiding Levenactuariaat (6 ects, Bachelor in Econometrics, Actuarial Science and Operations Research), University of Amsterdam (42h of teaching: lectures, computer labs using MS Excel and exercise sessions)

Actuarial Practice Cycle: Case on loss reserving (Amsterdam Executive Master in Actuarial Science, Business School), University of Amsterdam (30h lectures, in cooperation with Towers Watson, Milliman, Actuaris (France), Posthuma Partners, ASR, DNB) (coordination, teaching)

Advanced Non–Life Insurance Mathematics (6 ects, Master in Financial and Actuarial Engineering), KU Leuven (39h of teaching: lectures, computer labs using R and SAS and exercise sessions)

Advanced Life Insurance Mathematics (6 ects, Master in Financial and Actuarial Engineering), KU Leuven (21h of teaching: lectures, computer labs using R and exercise sessions) (with dr. Leen Teunen)

Statistics for Finance and Insurance (Master in Financial and Actuarial Engineering), KU Leuven (6h of teaching: lectures on extreme value statistics, substitute for dr. Tim Verdonck)

Seminarie verzekeringen (6 ects, Master in Verzekeringen), KU Leuven (coordination, organizing guest lectures,. . .)

MSc thesis Master in Financial and Actuarial Engineering, KU Leuven (coordination)

MSc thesis Master in Verzekeringen, KU Leuven (coordination)

Promoter and work leader of the following projects: Silke Philips & Carolien Peeters (KU Leuven, MSc), Veerle Trippaers & Ilse Munnikhof (KU Leuven, MSc), Laurence Verheye & Siska De Pril (KU Leuven, MSc), Karl De Brucker (KU Leuven, MSc), Hok-Kwan Kan (UvA, MSc), Saskia Das (UvA, MSc), Wilbert Ouburg (UvA, MSc), Miriam Visser (UvA, MSc), Jurjen Boog (UvA, MSc), Lianne Westinga (UvA, BSc), Jasper Kunst (UvA, BSc), Reinder Van Velze (UvA, BSc).

Academic year 2010-2011

Basis Actuariaat 2 (5 ects, Bachelor in Actuarial Science), University of Amsterdam (24h of teaching: lectures and exercise sessions)

Basis Actuariaat 1 (5 ects, Bachelor in Actuarial Science), University of Amsterdam (with dr. Jan Bogers) (coordination, preparation of teaching material and exams, correction of exams)

Levenactuariaat 2 (5 ects, Bachelor in Actuarial Science), University of Amsterdam (with prof. dr. M.H. Vellekoop and prof. dr. R. Kaas) (8h of teaching: lectures and exercise sessions)

Actuarial Practice Cycle: Case on loss reserving (Amsterdam Executive Master in Actuarial Science, Business School), University of Amsterdam (30h lectures, in cooperation with Towers Watson, Milliman, Actuaris (France), Posthuma Partners, ASR, DNB) (coordination, teaching)

Schade 3 (AG18) (2 groups with each 32h of lectures), Actuarieel Instituut (AI), opleiding tot Actuaris AG, Utrecht (The Netherlands)

Advanced Non–Life Insurance Mathematics (6 ects, Master in Financial and Actuarial Engineering), KU Leuven (9h of teaching: lectures) (with prof. dr. Marc Goovaerts)

Advanced Life Insurance Mathematics (6 ects, Master in Financial and Actuarial Engineering), KU Leuven (30h of teaching: lectures, computer labs using R and exercise sessions)

Seminarie verzekeringen (6 ects, Master in Verzekeringen), KU Leuven (coordination, organizing guest lectures,. . .)

MSc thesis Master in Financial and Actuarial Engineering, KU Leuven (coordination)

MSc thesis Master in Verzekeringen, KU Leuven (coördination)

Promoter and work leader of the following projects: Sjoerd Brethouwer (UvA, BSc), Jord Brethouwer (UvA, BSc), Vera Makhan (UvA, BSc), Daniël Lintvelt (UvA, BSc), Allon Van der Heijden (UvA, BSc), Daniël Swanink (UvA, BSc), Paulien Van de Hoef (UvA, MSc), Benedicte Jong & Jan Bilsen (KU Leuven, MSc), Frederik Borgers (KU Leuven, MSc), Karl De Brucker (KU Leuven, MSc).

Academic year 2009-2010

Basis Actuariaat 2 (5 ects, Bachelor in Actuarial Science), University of Amsterdam (24h of teaching: lectures and exercise sessions)

Basis Actuariaat 1 (5 ects, Bachelor in Actuarial Science), University of Amsterdam (coordination, preparation of teaching material and exams, correction of exams) (with dr. J. Bogers)

Kansrekening en Statistiek 1 (6 ects, Bachelor in Actuarial Science, Econometrics and Operations Research), University of Amsterdam (30h of teaching: lectures, computer labs using Mathematica and exercise sessions)

Kansrekening en Statistiek 2 (6 ects, Bachelor in Actuarial Science, Econometrics and Operations Research), University of Amsterdam (18h of teaching: computer labs using Mathematica and exercise sessions) (with dr. L. Seelen)

Afstudeerseminar Bachelor Scriptie in Actuariaat (Bachelor in Actuarial Science), University of Amsterdam (coordination)

Schade 3 (AG18) (1 group, 32h of lectures), Actuarieel Instituut (AI), opleiding tot Actuaris AG, Utrecht (The Netherlands)

Statistics for Finance and Insurance (6 ects, Master in Financial and Actuarial Engineering), KU Leuven (26h of teaching: lectures, computer labs using R), substitute for prof. dr. Jan Beirlant

Promoter and work leader of the following projects: Jolien Van der Beemt (UvA, BSc), Stef Flierman (UvA, BSc), Ronald Castenmiller (UvA, MSc), Frank Van Berkum (UvA, MSc)

Academic year 2008-2009

Basis Actuariaat 2 (5 ects, Bachelor in Actuarial Science), University of Amsterdam (24h of teaching: lectures and exercise sessions)

Basis Actuariaat 1 (5 ects, Bachelor in Actuarial Science), University of Amsterdam (coordination, preparation of teaching material and exams, correction of exams) (with drs. S. Leijsen)

Kansrekening en Statistiek 1 (5 ects, Bachelor in Actuarial Science, Econometrics and Operations Research), University of Amsterdam (30h of teaching: lectures, computer labs using Mathematica and exercise sessions)

Kansrekening en Statistiek 2 (5 ects, Bachelor in Actuarial Science, Econometrics and Operations Research), University of Amsterdam (18h of teaching: computer labs using Mathematica and exercise sessions) (with dr. L. Seelen)

Schade 3 (AG18) (1 group, 32h of lectures), Actuarieel Instituut (AI), opleiding tot Actuaris AG, Utrecht (The Netherlands)

Afstudeerseminar Bachelor Scriptie in Actuariaat (Bachelor in Actuarial Science), University of Amsterdam (coordination)

Promoter and work leader of the following projects: Jiske Rigter (UvA, MSc), Devon Meijlink (UvA, MSc), Karin Van Gelder (UvA, MSc), David Van Klaveren (UvA, MSc), Loes de Boer (UvA, MSc)

Academic year 2007-2008

Basis Actuariaat 2 (5 ects, Bachelor in Actuarial Science), University of Amsterdam (24h of teaching: lectures and exercise sessions)

Basis Actuariaat 1 (5 ects, Bachelor in Actuarial Science), University of Amsterdam (coordination, preparation of teaching material and exams, correction of exams) (with drs. S. Leijsen)

Kansrekening en Statistiek 3 (5 ects, Bachelor in Actuarial Science, Econometrics and Operations Research), University of Amsterdam (24h of teaching: lectures, computer labs using Mathematica and exercise sessions) (with prof. dr. C.G.H. Diks)

Afstudeerseminar Bachelor Scriptie in Actuariaat (Bachelor in Actuarial Science), University of Amsterdam (coordination)

Promotor and work leader of the following projects: Nienke Kluft (UvA, MSc), Antien Kool (UvA, MSc), Stef Van Zijtveldt (UvA, BSc), Daan XXX (UvA, BSc)

Academic years 2003-2007

Exercise sessions and computer labs for the following courses: *Kansrekenen* (prof. J. Teugels), *Kansrekenen* (prof. I. Gijbels), *Statistical modeling of risk* (prof. J. Beirlant), *Statistics of extremes* (prof. J. Beirlant), *Practicum toegepaste wiskunde*, *Inleiding tot kansrekening en statistiek* (prof. J. Van Dyck & J. Beirlant), *Wiskundige statistiek* (prof. I. Gijbels), *Advanced Non-Life Insurance Mathematics* (prof. M. Goovaerts).

Skills

Mathematical and statistical software packages

Good knowledge of programming with R, Python and SAS

Good knowledge of blogdown, bookdown, markdown, xaringan packages in R

Good knowledge of MS Office and LaTeX.

Languages

Dutch (mother tongue), English (fluent, oral and written) and French (basic, oral and written).

Interests and hobbies

Music (e.g. Calexico, The War on Drugs, Brandi Carlile, Ryan Adams, Wilco, Prince, The National, Typhoon, Tourist LeMC), reading, hiking, spending time with my family.

Basketball player (forward/guard) from 1991-2010 with Basket Groot Willebroek and September - January 2020 with Basket Klub Weerde Dames, trainer/coach of a youth team in season 2003-2004, and trainer/coach on summer camps from 1999-2004.

Residence hall responsible for KU Leuven (Dienst Studentenhuisvesting): Arenberg (Cité) (2003-2004) and Pius X (2004-2006). Duties: communication with students and staff, organization of meetings and social activities, conflict management and guidance of international students.

Date of CV

This CV was compiled on February 3, 2025.