



JOCO 2024  
THE FIRST JOINT  
COLLOQUIUM OF ALL  
IAA SECTIONS

Tuesday 24 Sept.



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AKUR8



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PLAZA				AG CAMPUS			
07:15 - Open Registrations							
08:15-09:00 <b>Keynote Speech:</b> Montserrat Guillen "Telematics Insights on Time vs. Distance in Motor Insurance Pricing"							
09:00-09:15 Breakout							
THEATER	PAOLA	MARIE-HENRIETTE	ELIZABETH	AUDITORIUM A	AUDITORIUM B	PONT-NEUF 2.3	FLEUR 006
<b>IAALS - Intergated Marchine Learning With Actuarial Practice</b> Chair: Pedro Pacheco  09:15-9:45 Suzuki M. "A New Framework to Quantify Insurance Liabilities Prediction Error Applicable to Machine Learning Models"  9:45-10:15 Naoki Matsuyama "Cause-of-death mortality prediction using a neural network"  10:15-10:45 Donatien Hainaut "Valuation of guaranteed minimum accumulation benefits (GMAB) with physics inspired neural networks"	<b>PBSS - Innovation in Pension Design</b> Chair: Jennifer Alonso Garcia  09:15-9:45 Feliciangeli M., Bernard C. & Vanduffel S. "Can an Actuarially Unfair Tontine Be Optimal?"  9:45-10:15 Brinc Van Wyk "Australian Retirement Trust Lifetime Pension"  10:15-10:45 Anderson J., Devlin P., Leicht C. Probst, C. "A Review of the Environmental, Social and Governance reporting among global pension plans and a proposed reporting framework"	<b>IACA - Session 3</b> George Symeonidis  09:15-10:00 Jacques Laurent "Using blockchain to replace insurance captives and SPVs"  10:00-10:45 Maréchal X. & Lebègue A. "An actuarial engineering perspective: why actuarial science and IT skills must converge"	<b>IAALS - Deep Learning Application</b> Chair: Frederick Rowley  09:15-10:00 Richman R. & Scognamiglio S. "Multiple Yield Curve Modeling and Forecasting using Deep Learning"  10:00-10:45 Richman R. & Balona C. "Deep learning with Whittaker and Henderson"	<b>AFIR/ERM - Actuarial techniques</b> Chair: Eric Dal Moro  09:15-10:00 MALCOLM HUGH DAVID KEMP "Modern Financial Simulation Techniques"  10:00-10:45 Mathieu Truc "Efficient computation of Solvency Capital Requirement using Multilevel Monte Carlo Methods"	<b>ASTIN - Motor Insurance</b> Chair: Frank Cuyppers  09:15-9:45 Gulyan A. & Gevorgyan Y. "Analyzing the Impact of Bonus-Malus System Changes on Time-to-Event in Compulsory Motor Third Party Liability (CMTPL) Insurance: A Comprehensive Study"  9:45-10:15 Michael Klamser "The predictive power of the Quantile Regression in the area of large claims - A practical example"  10:15-10:45 Moriah M., Vermet F. & Charpentier A. "Measuring and Mitigating fairness Biases in Motor Insurance Pricing"		<b>ASTIN - Copula estimation &amp; Loss Modeling</b> Chair: Bernard Wong  09:15-9:45 Michaelides M., Cossette H. & Pigeon M. "A non-parametric estimator for Archimedean copulas under flexible censoring scenarios and an application to claims reserving"  9:45-10:15 Valdez E. & So B. "Zero-Inflated Tweedie Boosted Trees with CatBoost for Insurance Analytics"  10:15-10:45 Willame G., Trufin J. & Denuit M. "Boosted Poisson regression trees: A guide to the BT package in R"
10:45 - 11:15 Refreshment Break				10:45 - 11:15 Refreshment Break			
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<b>IAALS - The Impact of COVID-19</b> Chair: Mike Lombardi  11:15-12:00 van Berkum F., Kleinow T. & Simonetti I. "Quantifying excess mortality during the COVID-pandemic by cause of death against a pre-pandemic and socio-economic factor-dependent baseline"  12:00-12:45 Cédric Turckisn "The impact of Covid-19 on the mortality and the introduction of mortality jumps in the projection"	<b>IAAHS - Session 3</b> Chair: TBD  11:15-12:00 Thomas Neusius "Comparative Analysis of Long-Term care Financing Models in Germany"  12:00-12:45 Slim Ribal "Agent-based Modeling of an Insurance Portfolio During a Pandemic"			<b>PBSS - Social Security Design</b> Chair: Allan Paldanius  11:15:11:45 Contreras - Cruz C. & González - Ramirez D. "Characteristics of the pension systems: Classification and their conceptual problems"  11:45-12:15 Mayu Matsumoto "Past Responses and Future Challenges for Social Protection in Japan, a Country with an Advanced Aging Population"  12:15:12:45 George Ongkeko "Sustainability of Philippines Civil Pension System "	<b>ASTIN - Auto-Calibration</b> Chair: Ronald Richman  11:15-11:45 Huyghe J., Trufin J. & Verdebout T. "Testing for auto-calibration with Lorenz and Concentration curves"  11:45-12:15 Trufin J. & Denuit M. "Convex and Lorenz orders under balance correction in nonlife insurance pricing"  12:15:12:45 Farkas S., Roux A. "Historic inflation in reserving triangle: Taylor and Verbeek techniques are equivalent to Chain Ladder on a calendar triangle"	<b>AFIR/ERM - Actuarial Techniques &amp; Climate risk</b> Chair: Alexander Bohnert  11:15-11:45 Le Courtois O., Schneider L. & Pak A. "A regime switching approach to climate risk."  11:45-12:15 Naoki Matsuyama "Risk aversion in optimization in enterprise risk management frameworks for insurers"  12:15:12:45 Trust S. & Cowling, C. "Climate Scorpion – the sting is in the tails"	<b>ASTIN - Claims Reserving</b> Chair: Dimitri Semenovich  11:15-11:45 Sebastian Calcetero Vanegas "Claim Reserving via Inverse Probability Weighting: A Micro-Level Chain-Ladder Method"  11:45-12:15 Rene Dahms "Why the hell do we still stick to Chain Ladder and Bornhuetter-Ferguson?"  12:15-12:45 Matos C. & de Carvalho R. "Evaluating the Efficiency of Generalized Linear Models (GLM) in IBNR Estimation across Varied Portfolio Conditions: A Comprehensive Analysis"
12:45 - 13:45 : Lunch Break							
13:45-18:00 -: Social Activities - Departure from the Plaza Hotel							
19:00-00:30: Gala Dinner at the Autoworld Museum							



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Wednesday 25 Sept.



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PLAZA				AG CAMPUS			
07:15 - Open Registrations							
08:15-09:00 <b>Keynote Speech:</b> Andrew Cairns "Cause-of-Death Mortality Data: Unravelling the Mysteries of All-Cause Mortality"							
09:00-09:15 Breakout							
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<b>IAALS - Mortality - modelling uncertainties and impacts</b> <b>Chair: Ana Bojanic</b>  09:15-10:00 Eva Odenkirchen "Uncertainties of projecting mortality trends"  10:00-10:45 Sorihashi T., Nomura S. & Matsumori Y. "Impact of the COVID-19 pandemic and temperature on cardiovascular disease mortality in Japan"	<b>PBSS - financial modeling</b> <b>Chair: John Anderson</b>  09:15-09:45 Bertschi L., Trulzi M. & Candaux L. "Analysis Inflation forecasting and based on its development benefits estimating for pension fund members with computational support (AI)"  09:45-10:15 Hernández-Pacheco A. & Carcache R. "Untangling complex interest rate dynamics in pension funds: how 80 can be greater than 100"  10:15-10:45 Freitas L. & Carvalho J. "ACTUARIAL ASSUMPTIONS MANAGEMENT IN PENSION PLANS SPONSORED BY BRAZILIAN LISTED COMPANIES UNDER IAS 19"	<b>IACA - Session 4</b> <b>Chair: Xavier Maréchal</b>  09:15-09:45 Turckin Cédric "Blockchain, a non-risk neutral world ?"  09:45-10:15 Dessain J. & Bentaleb N. "Cost and efficiency of Explainable AI with human expert judgement – an example with credit scoring models"  10:15-10:45 Richman Ron "Reflections on deep learning and the actuarial profession(al)"	<b>ADM - Session 1</b> <b>Chair: Vladimir Bubalov</b>  9:15-10:00 Renata De Leers "Introduction to AdM & inclusive insurance"  10:00-10:45 Rodrigue Kazzi "Designing Collaborative Insurance Based on Decentralized Risk-Sharing"	<b>AFIR/ERM - Climate Risk</b> <b>Chair: Alexander Bohnert</b>  09:15-10:00 John Manistre "The Risk Adjusted Scenario Set"  10:00-10:45 Stephane Loisel "Managing some climate change risks in insurance thanks to prevention"	<b>ASTIN - Parametric Insurance/Climate Risks/Parameter risk</b> <b>Chair: Miyuki Ebisaki</b>  9:15-9:45 Marques R., Branco K. & Beijo L. "On Bayesian agricultural parametric insurance for extreme weather events"  09:45-10:15 Cywie S., Sabatie L., Lopez O. & Neves C. "Actuarial Support for Parametric Insurance Development"  10:15-10:45 Cuypers frank "Quantifying Parameter Risk"	<b>AFIR/ERM - Risk Management</b> <b>Chair: Malcolm Kemp</b>  09:15-09:45 Pirra M., De Giovanni D. & Leccadito A. "Cyber Risk Mitigation Strategies"  09:45-10:15 McNichols J. & Franklin B. "Foreign Currency Translation Risk Management with Structured Insurance Solutions"  10:15-10:45 Yelle Hunnicke "A Practitioner's Guide to a Flood Risk Assessment: Building forward-looking flood maps for insurance applications"	<b>IAAHS - Session 4</b> <b>Chair: TBD</b>  09:15-10:00 Hieber P., Lucas N. "Modern Life-Care Tontines"
10:45 - 11:15 Refreshment Break				10:45 - 11:15 Refreshment Break			
THEATER	PAOLA	MARIE-HENRIETTE	ELIZABETH	AUDITORIUM A	AUDITORIUM B	PONT-NEUF 2.3	FLEUR 006
<b>IAALS - Advances and Modelling in Life Practice</b> <b>Chair : Rosalind Rossouw</b>  11:15-12:00 Akbaraly A. & Hainaut D. "Risk management with Local Least Square Monte Carlo"  12:00-12:45 Vekas P. & Szentkereszti G. "Mortality forecasting in geographical space and time"	<b>PBSS - Retirement Income adequacy</b> <b>Chair: George S. Ongkeko, Jr.</b>  11:15-11:45 Targino R., Ludkovski M. & Fraga L. de Melo E. "Mortality Forecasting of Small Pension Fund Population with Gaussian Processes in a Sub Population Framework"  11:45-12:15 Afonso L. "Are survivors' benefits relevant? The redistributive impacts of the 2019 pension reform in Brazil on the federal public sector employees"  12:15-12:45 Symeonidis G. & Lappas P. "Fuzzy inference system and multi-criteria decision analysis approaches for modeling replacement rate in funded pension systems"	<b>IACA - Session 5</b> <b>Chair: Adam Reese</b>  11:15-11:45 Marc Henry "Measuring the Transfer of Risk of Reinsurance contract"  11:45-12:15 Ira Robbin "Climate Change or Not: What is the Role of Actuaries in Addressing Concerns About the Climate?"  12:15-12:45 Rodrigo Silva "A Predictive Model for a Health High Cost Insurance Product in Colombia" (Co-Sponsored IAAHS)	<b>ADM - Session 2</b> <b>Chair: Rodrigue Kazzi</b>  11:15-12:00 François-Xavier Hay "Assessing and managing agricultural risks & insurance - case study: parametric insurance"  12:00-12:45 David Akwei "Case study of parametric agriculture product in a developing market"  12:15-12:45 Nicolas Daxhelet "About capital or operational challenges, using Legacy Reinsurance or Business transfer to deliver finality"	<b>AFIR/ERM - Risk Management</b> <b>Chair: Malcolm Kemp</b>  11:15-11:45 Fonseca N., Carvalho J., Vinicius J. & Araujo T. "When There's no November Rain: Developing a Parametric Insurance for Hydroelectric Energy Generators in Brazil"  11:45-12:15 Nicolas Daxhelet "About an experience of creating robustness by strengthening risk management"  12:15-12:45 Nicolas Daxhelet "About capital or operational challenges, using Legacy Reinsurance or Business transfer to deliver finality"	<b>ASTIN - Loss modeling - New Methods</b> <b>Chair: Bernard Wong</b>  11:15-11:45 Ron Richman "Smoothness and monotonicity constraints for neural networks using ICENet"  11:45-12:15 Bruno Bécha "Penalised regression as a credibility framework"  12:15-12:45 Wong B., Avanzi B. & Taylor G. "Machine Learning with High-Cardinality Categorical Features in Actuarial Applications"	<b>AFIR/ERM - GA + Bob Altingvon Geusau Prize</b> <b>Chair : Alexander Bohnert</b>  11:15-12:45 AFIR Annual General Meeting, including presentation of Prizes Alexander Braun, Martin Eling, Christoph Jaenicke « Cyber Insurance-Linked Securities» Andreas Tsanakas, Rui Zhu "Selecting Bivariate Copula Model Image Recognition"	<b>PBSS - UCL - Pierre Devolder's Emeritat</b> <b>Chair: Jennifer Alonso Garcia</b>  11:15-11:45 Peter Hieber "Modern survivor funds in pension design"  11:45-12:15 Menzietti M., De Giovanni D. & Pirra M. "NDC pension systems with health and LTC benefits"
12:45 - 14:00 : Lunch Break				12:45-13:45 drink for the emeritat of Pierre Devolder - Private invitation only AG CAMPUS			
THEATER	PAOLA	MARIE-HENRIETTE	ELIZABETH	AUDITORIUM A	AUDITORIUM B	PONT-NEUF 2.3	FLEUR 006
<b>IAALS - Annual General Meeting/prize</b> <b>Chair: Pedro Pacheco</b>  14:00:15:30 IAALS Annual General Meeting, including presentation of Ragnar Norbert Prize Daniël Linders "The three steps Hedge-Based Valuation: Fair Valuation in The Presence of Systematic Risks"	<b>PBSS - Annual General Meeting/prize</b> <b>Chair: Doug Carey</b>  14:00:15:30 PBSS Annual General Meeting, including presentation of the Chris Daykin Prize An Chen, Motonobu Kanagawa, Fanguyan Zhang "Intergenerational Risk Sharing in a Defined Contribution System: Analysis with Bayesian Optimization"	<b>IACA - Session 6</b> <b>Chair: Mukami Njeru</b>  14:00-14:45 Mombo J. A. "Facilitate the analysis of structured finance products' term sheets"  14:45-15:30 Brij Bhushan Sharma "Pension and other employee benefits in India"	<b>ADM - Session 3</b> <b>Chair: Rodrigue Kazzi</b>  14:00-14:30 Francis Gota "Microinsurance & technology"  14:30-15:00 Yoboua Angoua "Determinants of insurance uptake in sub-Saharan developing countries: evidence from Côte d'ivoire"  15:00-15:30 Fatoumata Diakete "Case study of hospital cash benefit insurance in Mali "	<b>AFIR/ERM - Climate Risk</b> <b>Chair: Alexander Bohnert</b>  14:00-14:45 Irene Merk "The impact of climate change on life and health insurance"  14:45-15:30 Nadia Sghaier "How Do the Climate Change factors affect the Insurance markets ?"	<b>ASTIN - Insurance technology/Reserving</b> <b>Chair: Frank Cuypers</b>  14:00-14:30 Caesar Balona "ActuaryGPT: Applications of Large Language Models to Insurance and Actuarial Work"  14:30-15:00 Hames T. "A multistate model for individual reserving"  15:00-15:30 Caesar Balona "New title to be confirmed"	<b>AFIR/ERM - Mortality - Ratemaking</b> <b>Chair: Malcolm Kemp</b>  14:00-14:45 Roelants du Vivier B., Devolder P. & Deelstra G. "Impact of correlation between interest rates and mortality rates on the valuation of various life insurance products"  14:45-15:30 Feliciangeli M., Kerkhof J. & Vanduffel S. "Partner Choice Impact on Mortality"	<b>ASTIN - Capital &amp; Profitability</b> <b>Chair : Peter Middelkamp</b>  14:00-14:30 Bomgiovani Cazzari R. & Haohua Lin A. "Analysis of the ability of Underwriting Risk Capital to measure insurance companies' risks: the Brazilian case"  14:30-15:00 Peter Middelkamp "Covariance Aggregation and Dependencies in Economic Capital Models"  15:00-15:30 Robbin I. & Malhotra A. "Insurance Profitability and the Value of Reinsurance from the Investors Perspective"
15:30 - 15:45 Break							
15:45 - 16:30 <b>Keynote Speech:</b> Katrien Antonio							
16:30-17:30 Best papers awards JoCo2025 & ICA2026 announcements Fabian de Bilderling, Chair of JoCo2024 and President IA BE : Closing Address							
17:30-19:30: Closing Cocktail							