

Remembering Ragnar

“Certain forms of uncertainty make life interesting but less safe. I was always intrigued by the various forms of risk that are associated with human life and activity and how they can be mitigated for the individual by contractual risk exchange between two or more parties. Certain forms of certainty make life interesting and more safe. I was always attracted to mathematics because it allows for statements that are non-trivial and still indisputably true. These two areas of interest synthesize perfectly into actuarial/financial mathematics, which gives precise contents to notions of risk and develops methods for measuring and controlling it.”

(Ragnar Norberg, 1945 – 2017)

Remembering Ragnar is a half-day event where we commemorate Ragnar Norberg and his many contributions, not least to the actuarial research literature and to the research and educational environments he cultivated, championed, and challenged. The event is hosted by Mogens Steffensen and features talks by Walther Neuhaus, Thomas Møller, Stéphane Loisel, Kristian Buchardt, and Marcus C. Christiansen. It is concluded by a reception dinner.



Wednesday, 14th of August

| | | | |
|-------------|---|-------------------------------|---|
| 13:30–14:00 | Registration and coffee | | |
| 14:00–14:10 | Aud 1 | Opening | |
| 14:10–14:50 | Aud 1 | Walther Neuhaus | Remembering Ragnar – the early days IS |
| 14:50–15:30 | Aud 1 | Thomas Møller | Aspects of interplay between finance and insurance IS |
| 15:30–15:55 | Coffee and sweets | | |
| 15:55–16:35 | Aud 1 | Stéphane Loisel | Ragnar in Lyon: retired but not tired! IS |
| 16:35–17:15 | Aud 1 | Kristian Buchardt | Forward transition rates for valuation IS |
| 17:15–17:55 | Aud 1 | Marcus C. Christiansen | Two hidden gems in the works of Ragnar Norberg IS |
| 17:55–18:00 | Aud 1 | Closing | |
| 18:00–20:00 | Reception dinner in <i>Vandrehallen</i> | | |

Abbreviations: CT(s) for Contributed Talk(s); IS for Invited Speaker; PS for Plenary Speaker.

Timetables

Thursday, 15th of August

| | | | |
|-------------|---|--|--|
| 8:00–8:45 | Registration and coffee | | |
| 8:45–9:00 | Aud 1 | Opening | |
| 9:00–10:00 | Aud 1 | Valérie Chavez-Demoulin | Causal Discovery in Multivariate Extremes with a Hydrological Analysis of Swiss River Discharges PS |
| 10:00–10:20 | Coffee | | |
| 10:20–12:00 | Aud 1 Aud 5 Aud 6 | Machine learning Mortality and longevity risk Valuation and design | CTs |
| 12:00–13:00 | Lunch | | |
| 13:00–14:00 | Aud 1 | Joshua Loftus | Model-agnostic explanation tools and their limitations PS |
| 14:05–15:20 | Aud 1 Aud 5 Aud 6 | Fairness Multi-state modeling Dividends and stochastic control | CTs |
| 15:20–15:45 | Coffee and sweets | | |
| 15:45–17:00 | Aud 1 | Roundtable on fairness | |
| 18:00–24:00 | Social event and conference dinner at <i>Arbejdmuseet</i> | | |

Friday, 16th of August

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|-------------|-------------------------|---|--|
| 9:00–10:00 | Aud 1 | Johanna Ziegel | Isotonic distributional regression and CRPS decompositions PS |
| 10:00–10:20 | Coffee | | |
| 10:20–12:00 | Aud 1 Aud 5 Aud 6 | Optimal consumption, investment, and insurance Economics of (re)insurance Statistics and extremes | CTs |
| 12:00–13:00 | Lunch | | |
| 13:00–14:40 | Aud 1 Aud 5 Aud 6 | Non-life insurance Asset allocation Lapse risk | CTs |
| 14:40–15:00 | Coffee and sweets | | |
| 15:00–16:00 | Aud 1 | Damir Filipović | Stripping the Swiss Discount Curve using Kernel Ridge Regression PS |
| 16:00–16:10 | Aud 1 | Closing | |

Parallel sessions — Thursday, 15th of August

Machine learning — Aud 1, 10:20–12:00

| Chair: Munir Eberhardt Hiabu | | | |
|------------------------------|-----------------------------|---|----|
| 10:20–10:45 | Ralf Wilke | Estimation of Panel Models with Group Structures in Fixed Effects | CT |
| 10:45–11:10 | Mathias Lindholm | A tree-based varying coefficient model with insurance applications | CT |
| 11:10–11:35 | Gabriele Pittarello | A machine learning approach based on survival analysis for IBNR frequencies in non-life reserving | CT |
| 11:35–12:00 | Thorsten Rheinländer | Deep Learning in Life Insurance | CT |

Mortality and longevity risk — Aud 5, 10:20–12:00

| Chair: Mogens Bladt | | | |
|---------------------|-------------------------------------|--|----|
| 10:20–10:45 | Cinzia Di Palo | Entropy and Life Annuity Changes | CT |
| 10:45–11:10 | Phillip Frede Halmsted Olsen | Matrix representations for prices of life-contingent derivatives | CT |
| 11:10–11:35 | Andrey Ugarte Montero | Incorporating Information on Insured Amounts to Improve Survival Rate Estimates from a Liability Perspective | CT |
| 11:35–12:00 | Mathias D. Plovst | Systematic longevity risk: The willingness to pay | CT |

Valuation and design — Aud 6, 10:20–12:00

| Chair: Luis Alvarez Esteban | | | |
|-----------------------------|------------------------------|--|----|
| 10:20–10:45 | Francesco Della Corte | Market-Consistent Valuation and Capital Assessment for Demographic Risk in Life Insurance: A Cohort Approach | CT |
| 10:45–11:10 | Francesco Rania | Risk profiles of Reverse Mortgage: empirical evidence from Italy | CT |
| 11:10–11:35 | Daniel Nkameni | Index based contracts as a component of an optimal insurance coverage against emerging risks | CT |
| 11:35–12:00 | Michèle Vanmaele | Second order Esscher pricing for models with jumps | CT |

Fairness — Aud 1, 14:05–15:20

| Chair: Mathias Lindholm | | | |
|-------------------------|--------------------------|---|----|
| 14:05–14:30 | Giovanni Rabitti | Measuring proxy discrimination effects with sensitivity analysis | CT |
| 14:30–14:55 | Tessa Steensgaard | Fair learning and testing for unfairness given protected features | CT |
| 14:55–15:20 | Xi Xin | Why You Should Not Trust Interpretations in Machine Learning: Adversarial Attacks on Partial Dependence Plots | CT |

Multi-state modeling — Aud 5, 14:05–15:20

| Chair: Christian Furrer | | | |
|-------------------------|----------------------------|---|----|
| 14:05–14:30 | Ayşe Arık | Examining breast cancer risk during COVID-19: Insights from semi-Markov modelling | CT |
| 14:30–14:55 | Oliver L. Sandqvist | Likelihood-based estimation for multistate models subject to IBNR- and RBNS effects | CT |
| 14:55–15:20 | Theis Bathke | Estimation of bivariate transition rates in life insurance | CT |

Dividends and stochastic control — Aud 6, 14:05–15:20

| Chair: Jostein Paulsen | | | |
|------------------------|-------------------------|--|----|
| 14:05–14:30 | Dante Mata Lopez | On an optimal dividend problem with a concave bound on the dividend rate | CT |
| 14:30–14:55 | Zuoquan Xu | Optimal dividend payout under path-dependent constraint | CT |
| 14:55–15:20 | Indira Dhar | Stochastic Control Problems in the Dynamic Nelson-Siegel Framework | CT |

Parallel sessions — Friday, 16th of August

Optimal consumption, investment, and insurance — Aud 1, 10:20–12:00

| Chair: Mogens Steffensen | | | |
|--------------------------|----------------------------|--|----|
| 10:20–10:45 | Seyoung Park | Optimal Consumption and Investment Decisions with Disastrous Income Risk: Revisiting Rietz's Rare Disaster Risk Hypothesis | CT |
| 10:45–11:10 | Debbie Kusch Falden | Calibration of risk aversion to real pension asset allocation | CT |
| 11:10–11:35 | Julie Bjørner Søre | Optimal consumption, investment, and life insurance, including state dependence by risk-adjusted utility | CT |
| 11:35–12:00 | Philipp C. Hornung | Investigating trade-offs in the design of smooth pension products | CT |

Economics of (re)insurance — Aud 5, 10:20–12:00

| Chair: Filip Lindskog | | | |
|-----------------------|--------------------------------|---|----|
| 10:20–10:45 | Svein-Arne Persson | Why firms should buy insurance | CT |
| 10:45–11:10 | Tao Li | (A)symmetric Information and Insurers' Nitpicky Behavior | CT |
| 11:10–11:35 | Lea Enzi | Stochastic differential reinsurance games: a jump filtration approach | CT |
| 11:35–12:00 | Aleksandar Arandjelovic | Reinsurance with neural networks | CT |

Statistics and extremes — Aud 6, 10:20–12:00

| Chair: Thomas Mikosch | | | |
|-----------------------|----------------------------------|---|----|
| 10:20–10:45 | Jorge Yslas | Robust claim frequency modeling through phasetype mixture-of-experts regression | CT |
| 10:45–11:10 | Yubo Rasmussen | Analyzing Extreme Weather Impact on Property Insurance Claim Severity: A Combined Pareto Neural Network Model | CT |
| 11:10–11:35 | Christoffer Øhlenschläger | Heterogeneous extremes in the presence of random covariates and censoring | CT |
| 11:35–12:00 | Jiajun Liu | An Asymptotic study of the generalized Tail-Gini measures | CT |

Non-life insurance — Aud 1, 13:00–14:40

| Chair: Martin Blatt | | | |
|---------------------|-------------------------|--|----|
| 13:00–13:25 | Uwe Schmock | On Matrix-Valued Gamma Distributions in Multivariate Poisson Mixture Models | CT |
| 13:25–13:50 | Melanie Averhoff | Experience Rating in the Cramér-Lundberg Model | CT |
| 13:50–14:15 | Taariq Nazar | On duration effects in non-life insurance pricing | CT |
| 14:15–14:40 | Filip Lindskog | Mack's estimator motivated by large exposure asymptotics in a compound Poisson setting | CT |

Asset allocation — Aud 5, 13:00–14:40

| Chair: Thorsten Rheinländer | | | |
|-----------------------------|-----------------------------|--|----|
| 13:00–13:25 | Yukio Muromachi | A Term Structure Model of Interest Rates with Regime-Switching Properties for Risk Evaluation | CT |
| 13:25–13:50 | Yevhen Havrylenko | Asset-liability management with liquid and fixed-term assets | CT |
| 13:50–14:15 | Carlos Miguel Glória | Optimal strategy for an AAM of DC pension plans under jump-diffusion and with time-varying ambiguity | CT |
| 14:15–14:40 | Michael Preisel | Long-Term Mean-Variance Optimization Under Mean-Reverting Equity Returns | CT |

Lapse risk — Aud 6, 13:00–14:40

| Chair: Marcus C. Christiansen | | | |
|-------------------------------|-------------------------|--|----|
| 13:00–13:25 | Andrea Molent | Enhancing Valuation of Variable Annuities in Lévy Models with Stochastic Interest Rate | CT |
| 13:25–13:50 | Oytun Haçarız | Lapse-supported Life Insurance and Adverse Selection | CT |
| 13:50–14:15 | Francesco Ungolo | A Dirichlet Process Mixture regression model for the analysis of competing risk events | CT |
| 14:15–14:40 | Stefan Gerhold | The effect of policy cancellation on the risk of an insurance portfolio | CT |