VICA 2018

1st Virtual ICA 2018

CONGRESS PROGRAM

Partners:

Actuarial Society of South Africa
Actuaries Institute Australia
CAS
Society of Actuaries
The Institute of Actuaries of Japan – Think the Future, Manage the Risk

IAA AAI AFIR-ERM Finance, Investment & ERM
IAA AAI ASTIN Non-Life Insurance
IAA AAI IAALS Life & Annuities
IAA AAI IACA Consulting Actuaries

ICA CIA BERLIN 2018

HOW TO READ THE VICA PROGRAM

1. LIVE SESSIONS

This is the main section of interest

This session is also relevant for these sections

Hot Topics
These sessions are related to current topics of the actuarial profession:
Act. Data Science (Actuarial Data Science)
Beh. Ins. & Cust. Cent. (Behavioral Insurance and Customer Centricity)
Cap. Markets (Capital Markets)
Demo. Change (Demographic Change)
Sust. Insurance (Sustainable Insurance)

FIRST SECTION • FURTHER SECTIONS

HOT TOPICS

Session Title

This is the title of the first talk in this session
★ First name and last name of the speaker (Affiliation)

This is the title of the second talk in this session
First name and last name of the speaker (Affiliation)

ICA This is the title of the third talk in this session
First name and last name of the speaker (Affiliation)

Session Chair: First name and last name of Session Chair

START 14:30

14.00 – 16.00, CHANNEL (Channel number)

ICA CIA BERLIN 2018

Icons
- Invited Speaker
- ★ Award Session
- ICA 2018 Best Paper Award

Session Chairs lead through the two hours session program

This logo marks the corresponding channel 1 - 8, which you will find on the website during the event.

This session is prepared in cooperation with...

2. EXCLUSIVE CONTENT

This is the weblink to the video on the VICA platform

FIRST SECTION

▶ This is the title of the recorded session
First name and last name of the speaker (Affiliation)
length of the video ⏱, (further sections)

MONDAY, 4 JUNE 2018

Launching the ICA 2018 – Opening

9.30 – 10.30, CHANNEL 1

PLENARY SESSION I

Future of Demography/Longevity

Forecasting Longevity
★ Mikko Myrskylä (Executive Director of the Max Planck Institute for Demographic Research, MPIDR)
START 11.00

Dealing with Longevity
★ Winfried Heinen (Chairman of the Board of Executive Directors, Gen Re)
START 11.45

★ Moderation: Jacques Wasserfall (Head of Life Technical, Zurich)

11.00 – 12.30, CHANNEL 1

AFIR-ERM 1

AFIR-ERM/DGVFM Session: Risk Modelling & Valuation

Quantifying Model Risk
★ Paul Glasserman (Jack R. Anderson Professor of Business, Columbia University)
START 14.00

Capital Management – From Modelling to Creating Value
★ Tom Wilson (Chief Risk Officer, Allianz)
START 15.00

Session Chair: Angelika May (Carl von Ossietzky University of Oldenburg)

14.00 – 16.00, CHANNEL 1

DGVFM
DEUTSCHE GESELLSCHAFT FÜR VERSICHERUNGS- UND FINANZMATHEMATIK e.V.

ASTIN 1 • AFIR-ERM

IAA Section Best Paper Award – ASTIN
The Impact of Insurance Premium Taxation
Anna-Maria Hamm (Leibniz University of Hannover)
START 14.00

Calculation of Flatrated Fleets in the Commercial Motor Business on the Basis of the Credibility Approach – A Practical Application
Michael Klamser (Allianz)
START 14.30

Experience Rating of (Re)Insurance Premiums under Uncertainty about Past Inflation
Michael Fackler (self-employed)
START 15.00

ICA *ICA 2018 Best Paper Award – Big Data Analytics – Algorithms, Analysis and Application*
Modelling Dynamic Policyholder Behavior through Machine Learning Techniques
Marco Aleandri (Sapienza University Rome, Ageas)
START 15.30

Session Chair: Detlef Frank (HUK24)

14.00 – 16.00, CHANNEL 4

IAA AAI ASTIN Non-Life Insurance

Actuaries Institute Australia

The Institute of Actuaries of Japan
Think the Future, Manage the Risk

MONDAY, 4 JUNE 2018

HEALTH 1

Prenatal Insurance – Coverage for the Unborn
Kay Ying Shong (RGA)
START 14.00

Anti-Selection in the Brazilian Individual Health Insurance Market
Ana Carolina Maia (University of São Paulo)
Joao Vinicius de Franca Carvalho (University of São Paulo)
START 14.30

Long-Term Health Insurance: The German Model
Clemens Frey (PwC)
David Richter (PwC)
START 15.00

Composition in Private Health Plans with Automatic Renewal
Thomas Neusius (Rhein-Main University of Applied Sciences)
START 15.30

Session Chair: Marcus Christiansen (Carl von Ossietzky University of Oldenburg)

14.00 – 16.00, CHANNEL 5

LIFE 1 • AFIR-ERM IACA

PRIIP-KID: Providing Retail Investors with Inappropriate Product Information?
Stefan Graf (Institute for Financial and Actuarial Science Ulm, ifa)
START 14.00

German Market Standard for PRIIP Category 4 Products
Andreas Niemeyer (Allianz)
Tobias Rieck (Allianz)
START 14.30

Modelling the Risk of a Policyholder Run
Tobias Huber (LMU Munich)
START 15.00

In-Force Management in the Context of Solvency II
Olaf Schmitz (Allianz)
START 15.30

Session Chair: Frank Schiller (Munich Re)

14.00 – 16.00, CHANNEL 2

LIFE 2 • PENSIONS

Market Consistent Cash Flows for Benefits, Tax and Future Profits in Life and Pension Insurance
★ Thomas Møller (Head of Actuarial Innovation and Modeling, PFA Pension)
START 14.00

Default Retirement Income Strategy
★ David Blake (Director, Pensions Institute at Cass Business School, London)
START 15.00

Session Chair: Jürgen Bierbaum (ALTE LEIPZIGER)

14.00 – 16.00, CHANNEL 8

PENSIONS 1 • IACA

Funding and Pension Protection Schemes

Measuring and Balancing Adequacy and Sustainability in Social Security Programs
Assia Billig (IAA Population Issues Working Group)
Aldona Skucaite (Vilnius University)
START 14.00

Automatic Balancing Mechanisms for Mixed Pension Systems
Carmen Boado-Penas (University of Liverpool)
START 14.30

Retirement Readiness
Ken Hohman (American Academy of Actuaries)
Martin Stevenson (First State Super)
START 15.00

Optimal Pension Protection
Till Förstemann (Deutsche Bundesbank)
START 15.30

Session Chair: Georg Thurnes (Aon Hewitt)

14.00 – 16.00, CHANNEL 3

IACA 1 • LIFE

ACT. DATA SCIENCE

New Developments in Insurance IT, Industrialization of Actuarial Processes
★ Patricia L. Renzi (Principal Life Technology Solutions, Milliman)
START 14.00

Preparing Digital Insurance for Take-Off
★ Axel Helmert (Managing Director, msg life central europe)
START 15.00

Session Chair: Rainer Fürhaupter (ROKOCO)

14.00 – 16.00, CHANNEL 6

PROFESSIONALISM 1

Regulation and the Actuarial Profession

Current Topics of Insurance Supervision
★ Frank Grund (Chief Executive Director of Insurance and Pension Funds Supervision, Federal Financial Supervisory Authority, BaFin)
START 14.00

Collaborating with Regulators around the World
Amanda Hosken (Swiss Re)
START 14.40

The Role of Actuaries in the German Supervisory System
Kay Schaumlöffel (Federal Financial Supervisory Authority, BaFin)
START 15.20

Session Chair: Maximilian Happacher (ERGO)

14.00 – 16.00, CHANNEL 7

MONDAY, 4 JUNE 2018

AFIR-ERM 3

AFIR-ERM/DGVFM Session: Risk Modelling and Valuation

Model Risk, Solvency and Risk Aggregation
★ Paul Embrechts (Professor of Insurance Mathematics, ETH Zurich)
START 16.30

Discussion
★ Paul Embrechts (Professor of Insurance Mathematics, ETH Zurich)
★ Paul Glasserman (Jack R. Anderson Professor of Business, Columbia University)
★ Tom Wilson (Chief Risk Officer, Allianz)
START 17.30

Session Chair: Ralf Korn (University of Kaiserslautern)

16.30 – 18.30, CHANNEL 2

DGVFM
DEUTSCHE GESELLSCHAFT FÜR VERSICHERUNGS-UND FINANZMATHEMATIK e.V.

AFIR-ERM 4

Op Risk Assessment = Black Swans Laughing?
Eberhard Müller (riskmueller consulting)
START 16.30

Recovery and Resolution Plans in Banking and Insurance
Bridget MacDonnell (Milliman)
Monika Smatralova (permanent tsb)
START 17.00

The Paradox of Prudence – Macroprudential Regulation of Life Insurance and Macroeconomic Models of the Financial Sector
Jochen Kienberger (Allianz)
START 17.30

Algorithmic Differentiation: The Silver Bullet to Overcome the Post Solvency II Challenge
Sven Ludwig (FIS)
START 18.00

Session Chair: Eberhard Müller (riskmueller consulting)

16.30 – 18.30, CHANNEL 7

ASTIN 3

Advances in Stochastic Mortality Modelling and Demographic Feature Extraction
★ Gareth Peters (Professor for Risk and Insurance Modeling, Heriot-Watt University, Edinburgh)
START 16.30

Using Risk Factors in Insurance Analytics: Data Driven Strategies
★ Katrien Antonio (Professor of Actuarial Science, KU Leuven)
START 17.10

IAA Section Best Paper Award – ASTIN
The Transition towards Semi-Autonomous Vehicle Insurance: The Contribution of Usage-Based Data
Montserrat Guillen (University of Barcelona)
START 17.50

Session Chair: Eric dal Moro (SCOR)

16.30 – 18.30, CHANNEL 4

IAA AAI ASTIN Non-Life Insurance

ASTIN 4 • PROFESSIONALISM

ACT. DATA SCIENCE

ASTIN Working Party: Machine Learning and Traditional Methods Synergy in Non-Life Reserving
Lorenzo Invernizzi (Zurich)
Salma Jamal (KPMG)
START 16.30

ASTIN Big Data Working Party Phase II: Predictive Modeling
Louise Francis (Francis Analytics and Actuarial Data Mining)
Axel Wolfstein (Verti)
START 17.00

Predictive Modeling – How Much is too Much?
Robert Brown (University of Waterloo)
Stephen Lowe (Casualty Actuarial Society)
Moderation: Mary Hosford (Commonwealth of Massachusetts)
START 17.30

Generation Actuarial 2.0
Cristina Mano (Cantanhede Mano Consultoria em Atuária)
Elena Rasa (Zurich)
START 18.00

Session Chair: Michiel van der Wardt (Actuarial Risk Management Services)

16.30 – 18.30, CHANNEL 8

HEALTH 2 • LIFE

On the Decomposition and Dynamics of Health Insurance Liabilities
★ Marcus Christiansen (Professor, Carl von Ossietzky University of Oldenburg)
START 16.30

Projection Models for Health Expenses
Jan-Philipp Schmidt (TH Köln – University of Applied Sciences)
START 17.10

Health-Linked Life Annuities: Combining Protection and Retirement Income
★ Ermanno Pitacco (Professor of Actuarial Mathematics and Life Insurance Technique, University of Trieste)
START 17.50

Session Chair: Angus Macdonald (Heriot-Watt University, Edinburgh)

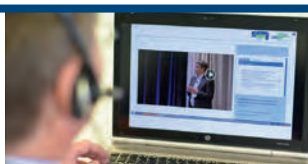
16.30 – 18.30, CHANNEL 5

LIFE 3 • AFIR-ERM PENSIONS

Capital-Efficient Participating Annuity Products in Practice
Jürgen Bierbaum (ALTE LEIPZIGER)
START 16.30

Disability Insurance: Theory Versus Empirical Results
Kai Kaufhold (Ad Res)
Peter Nielsen (RGA)
START 17.00

IAA Section Best Paper Award – LIFE
Impacts of Management Actions in Life Insurance
Estelle Gerondeau (ACTUARIS)
START 17.30



Projections and Profitability of Unit-Linked Products
Kristian Juul Schomacker (Edlund)
START 18.00

Session Chair: Wilhelm Schneemeier (German Association of Actuaries, DAV)

16.30 – 18.30, CHANNEL 1

IAALS Life & Annuities

PENSIONS 2

3

Behavioral Aspects of Retirement and Products

Simplifying Retirement by Aligning Communication with Retirement Outcomes
Catherine Donnelly (Heriot-Watt University, Edinburgh)
START 16.30

ICA
ICA 2018 Best Paper Award – Behavioral Aspects of Insurance Mathematics
Optimal Social Security Claiming Behavior under Lump Sum Incentives: Theory and Evidence
Ralph Rogalla (St. Johns University, New York)
START 17.00

ICA
ICA 2018 Best Paper Award – Aspects of Long-Term Savings:
Uncertainty in Low Real Returns, Longevity and Inflation
Saving Preferences in Retirement: the Impact of Mandatory Annuitization, Flexibility and Health Status
Jennifer Alonso-García (UNSW Sydney)
START 17.30

Harmonization of Pensions and Housing
Martin Stevenson (First State Super)
START 18.00

Session Chair: Nadine Gatzert (University of Erlangen-Nuremberg)

16.30 – 18.30, CHANNEL 3

IACA 2 • AFIR-ERM

6

Actuaries in Banking – Raising Awareness & Accelerating Global Penetration
Kudzai Chigiji (WesBank Group)
Michael Florig (Crédit Agricole CIB)
Peter Temple (African Bank)
Moderation: Michael Tichareva (National Standard)
START 16.30

Retakaful Under-Capacity – Growth Opportunity for Conventional Reinsurers?
Nina Ndebele (Institute and Faculty of Actuaries)
START 17.10

In-Force Management – A Challenge for Actuaries of the Fifth Kind
Mauro Piccinini (Boston Consulting Group)
Jochen Wieland (Boston Consulting Group)
START 17.50

Session Chair: tba

16.30 – 18.30, CHANNEL 6

AFIR-ERM Finance, Investment & ERM

ASTIN Non-Life Insurance

AFIR-ERM 6 • LIFE

1

CRO Round Table
★ Sue Kean (Chief Risk Officer, Old Mutual)
★ Tom Wilson (Chief Risk Officer, Allianz)
Frieder Knüpling (SCOR)
Moderation: Frank Schepers (Willis Towers Watson)
START 8.30

SCOR Actuarial Awards
Moderation: Frieder Knüpling (SCOR)
START 9.30

Session Chair: Frank Schepers (Willis Towers Watson)

8.30 – 10.30, CHANNEL 1

SCOR The Art & Science of Risk

AFIR-ERM 7

7

Innovation Platform: Innovative Approaches to Emerging Risks

Session Chairs: Matthias Fahrenwaldt (Heriot-Watt University, Edinburgh), Pierre Joos (Allianz)

8.30 – 10.30, CHANNEL 7

ASTIN 5 • IACA

4

Classifying Professions by Means of Regionalization
Stefan Wolfgang Wetzel (ALTE LEIPZIGER)
START 8.30

Property Graphs: A Statistical Model for Fire Losses Based on Graph Theory
Pietro Parodi (SCOR)
Peter Watson (Cass Business School, London)
START 9.10

Data, Decisions, and Distortions: Decision-Making in the Modern World
★ David Hand (Emeritus Professor of Mathematics, Imperial College London)
START 9.50

Session Chair: Yurij Krvavych (PwC)

8.30 – 10.30, CHANNEL 4

HEALTH 3 • LIFE

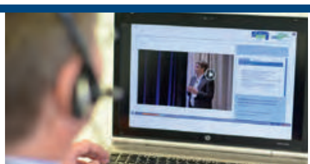
5

Selection Behavior in the Market for Private Complementary Long-Term Care Insurance in Germany
Jörg Schiller (University of Hohenheim)
START 8.30

Old-Age Care Prevalence in Switzerland: Drivers and Future Development
Michel Fuino (University of Lausanne)
START 9.00

ICA 2018 Best Paper Award – Demographic Change and Longevity
ICA Long-Term Care Models and Dependence Probability Tables by Acuity Level: New Empirical Evidence from Switzerland
Michel Fuino (University of Lausanne)
Joël Wagner (University of Lausanne)
START 9.30

ACTUARIAL SOCIETY OF SOUTH AFRICA



ICA CIA BERLIN 2018

Modelling Life History in Advanced-Age Period by Care-Cycle and Creating Multi-State Life Tables
Shuji Tanaka (Nihon University, Tokyo)
START 10.00

Session Chair: Ulrich Stellmann (self-employed)

8.30 – 10.30, CHANNEL 5

LIFE 5 • HEALTH

6

Cause-Of-Death Mortality and Socio-Economic Status: A Study of a Portfolio Dynamics
Heloise Labit Hardy (ARC Centre of Excellence in Population Aging Research)
START 8.30

Can Frailty Models Improve Actuarial Calculations in Health Insurance?
★ Ermanno Pitacco (Professor of Actuarial Mathematics and Life Insurance Technique, University of Trieste)
START 9.10

Making a Success in the Changing World of Disability Insurance
Zoe Woodroffe (Gen Re)
START 9.50

Session Chair: Stefan Graf (Institute for Financial and Actuarial Science Ulm, ifa)

8.30 – 10.30, CHANNEL 6

LIFE 6 • PENSIONS

8

Deep Dive into Thomas Møller's Talk "Market Consistent Cash Flows for Benefits, Tax and Future Profits in Life and Pension Insurance"
★ Thomas Møller (Head of Actuarial Innovation and Modelling, PFA Pension)

Session Chair: Jürgen Bierbaum (ALTE LEIPZIGER)

8.30 – 10.30, CHANNEL 8

PENSIONS 3 • LIFE

3

Intergenerational Fairness

Cohort Specific Measures of Lifetime Pension Benefits and Contributions in Finland
Ismo Vesa Antero Risku (Finnish Centre for Pensions)
START 8.30

Intergenerational Equity: Metrics for Conditional Indexation in Pension Plans
Louis Adam (Laval University, Québec)
START 9.00

Actuarial Perspectives on Inequality
Assia Billig (IAA Population Issues Working Group)
START 9.30

Communicating Longevity Risk to the Public
Ted Goldman (American Academy of Actuaries)
Andrew Peterson (Society of Actuaries)
START 10.00

Session Chair: Oskar Goecke (TH Köln – University of Applied Sciences)

8.30 – 10.30, CHANNEL 3

IACA 3 • ASTIN PROFESSIONALISM

ACT. DATA SCIENCE, BEH. INS. & CUST. CENT.

2

Digital Disruption: The Impact of Information Management on New Products and Business Models for Society

★ Tom Jenkins (Chair of the Board, OpenText)

START 8.30

Managing Environmental, Social and Governance (ESG) Factor Integration

Randy Bauslaugh (McCarthy Tétrault)

Hendrik Garz (Sustainalytics)

START 9.30

Session Chair: Ibrahim Muhanna (i.e. Muhanna & Co)

8.30 – 10.30, CHANNEL 2

PLENARY SESSION II

1

Panel Discussion on Future of Insurance

★ Scott Cochran (Executive Vice President, Corporate Development and Acquisitions, RGA)

★ Alf Neumann (Member of the Board of Management, Allianz)

★ Andrew Rear (Chief Executive, Munich Re Digital Partners)

★ Corinne Trocellier (Chief Operating Officer, SCOR Global Life)

★ Moderation: John Haley (Chief Executive Officer, Willis Towers Watson)

11.00 – 12.30, CHANNEL 1

PLENARY SESSION III

1

Future of Low Interest Rate Environment
Statement by ECB
★ Peter Praet (Member of the Executive Board, European Central Bank)
START 8.30

Panel Discussion: Low for Long – Macro-Economic Aspects and Impacts on Insurance Sector
★ Stephen O'Hearn (Global Insurance Leader, PwC)
★ Klaus Wiener (Chief Economist, German Insurance Association)
START 9.30

★ Moderation: Ken Mungan (Chairman of the Board and leads Milliman Financial Risk Management, Milliman)

8.30 – 10.00, CHANNEL 1

AFIR-ERM 9 • ASTIN LIFE

2

AFIR-ERM/DGVFM Day

Flood Risk Modelling: Methodology and Challenges
★ Hansjörg Albrecher (Professor of Actuarial Science, University of Lausanne)
START 10.30

Contagion and Systemic Risk
★ Paul Glasserman (Jack R. Anderson Professor of Business, Columbia University)
START 11.30

Session Chairs: Matthias Scherer (Technical University of Munich)
Alfred Müller (University of Siegen)

10.30 – 12.30, CHANNEL 2

DGVFM
DEUTSCHE GESELLSCHAFT FÜR VERSICHERUNGS-UND FINANZMATHEMATIK e.V.

AFIR-ERM 10

CAP. MARKETS

6

Optimal Portfolios under Possible Stress Scenarios
Ralf Korn (University of Kaiserslautern)
START 10.30

Liability Driven Investments with a Link to Behavioral Finance
Markus Wahl (Technical University of Munich)
START 11.00

ICA *ICA 2018 Best Paper Award – Demographic Change and Longevity*
Population Structure and Asset Values
Kathleen Rybczynski (University of Waterloo)
START 11.30

A Third Order Factor for Immunization: Implications into Solvency II
J. Iñaki De La Peña (University of the Basque Country)
START 12.00

Session Chair: Jochen Russ (Ulm University, Institute for Financial and Actuarial Science Ulm, ifa)

10.30 – 12.30, CHANNEL 6

ASTIN 6

ASTIN Summer School

Aspects of Market-Consistent Valuation in Non-Life Insurance
★ Alexander McNeil (Professor of Actuarial Science, University of York)

Session Chair: Matthias Fahrenwaldt (Heriot-Watt University, Edinburgh)

10.30 – 12.30, CHANNEL 3

LIFE 8 • AFIR-ERM PENSIONS

Probability of Sufficiency of the Risk Margin for Life Companies under IFRS 17
Eric Dal Moro (SCOR)
Yuriy Krvavych (PwC)
START 10.30

Reserving for Life Insurance in a Low Interest Rate Environment – Additional Interest Provisions (Zinszusatzreserve)
Wolfgang Siegert (Allianz)
START 11.00

The Evolution of Yield Curves in Two-Factor Hull-White Models
Franziska Diez (Fraunhofer Institute for Industrial Mathematics)
Ralf Korn (University of Kaiserslautern)
START 11.30

Maximum Technical Interest Rates in Life Insurance under Solvency II
Michael Pannenberg (HDI)
START 12.00

Session Chair: Martina Backes (Aeiforia)

10.30 – 12.30, CHANNEL 1

LIFE 9 • HEALTH

Looking at Concentration and Composition in the Life Insurance Context
★ Josée Kaulich-Bartz (Manager of Experience Studies & Analytics, Swiss Re)
★ Walter Olbricht (Professor, University of Bayreuth)
START 10.30

Big Data meets Disability Insurance
★ Frank Schiller (Chief Actuary in Life and Health Reinsurance, Munich Re)
START 11.30

Session Chair: Esther Schütz (Partner Re)

10.30 – 12.30, CHANNEL 7

PENSIONS 4

PENSIONS/IVS Session on Employer's Accounting for Pensions

Employer's Accounting for Pensions: Insurance Accounting vs. Employer's Accounting under IFRS
Stefan Engeländer (KPMG)
Andreas Johannleweling (KPMG)
START 10.30

Valuation of Pension and Similar Obligations for the Purposes of a Corporate Transaction
Graham Pearce (Mercer)
START 10.54

Alternative Approaches for Unwinding the Discount –
With Particular Focus on Determining Interest Cost under US-GAAP and IFRS
Alfred E. Gohdes (Rentenberatung Gohdes)
START 11.18

Interest Rates: In Search of a "New Normal"
Rolf Ketzler (German Insurance Association)
START 11.42

A Markov-Chain-Type Approach for Pension Benefits
Rainer Berntzen (Gutachterbüro Karras)
START 12.06

Session Chair: Friedemann Lucius (HEUBECK)

10.30 – 12.30, CHANNEL 4

IVS
INSTITUT DER VERSICHERUNGSMATHEMATISCHEN SACHVERSTÄNDIGEN FÜR ALTERSVERSORGUNG e.V.

PENSIONS 5 • AFIR-ERM IACA

8

PENSIONS/IVS Session on Investment Strategies in Retirement and Product Design

IVS-Award

The Retirement Income Frontier and Its Application in Constructing Investment Strategies at Retirement
John Anderson (Alexander Forbes)
Steven Empedocles (Sygnia Asset Management)
START 10.30

Personalizing ALM-Based Investment Strategies for Default DC Members
Brnic Van Wyk (QSuper)
START 11.00

Interrelations Between Certain Regulatory Requirements, Investment Strategies and Security of Benefits in Occupational Pension Institutions (IORPs)
Stefan Nellshen (Bayer-Pensionskasse)
START 11.30

DC: Profiting Responsibly of Abandoning Guarantees – Risk-Bearing Investments
in the Payout Phase: Method and Consequences
Ruud Smits (Aegon)
START 12.00

Session Chair: Horst-Günther Zimmermann (German Institute of Pension Actuaries, IVS)

10.30 – 12.30, CHANNEL 8

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IACA 4 • ASTIN

ACT. DATA SCIENCE

5

Big Data Analytics as an Opportunity for Fraud Management in the Bank Sector
John Olukuru (Strathmore University, Nairobi)
START 10.30

Estimation of Claim Amounts Using Bivariate Hidden Markov Models
★ A. Sevtap Kestel (Professor at Middle East Technical University, Ankara)
START 11.10

WEDNESDAY

Big Data Analytics, Mining Your Catastrophe Claims Data for Competitve Advantage
★ Karen Clark (CEO of Karen Clark & Co.)
START 11.50

Session Chair: Michael Bayard Smith (International Association of Consulting Actuaries and Caribbean Actuarial Association)

10.30 – 12.30, CHANNEL 5

AFIR-ERM 12

AFIR-ERM/AAE Session

Limit Systems under Solvency II
Michael Klüttgens (Willis Towers Watson)
Klaus-Peter Nischke (R+V, University of Dortmund)
START 14.00

IAA Section Best Paper Award – AFIR-ERM
An Analysis of the Solvency II Structure Regulatory Framework's Smith-Wilson Model for the Term Structure of Risk-Free Interest Rates
Peter Løchte Jørgensen (Aarhus University)
START 14.30

Robust Evaluation of Solvency Capital Requirement for Participating Life Insurances Under Solvency II
Donatien Hainaut (University of Louvain)
START 15.00

Panel Discussion: 2 Years of Solvency II from an European Point of View
Thomas Béhar (Actuarial Association of Europe)
START 15.30

Session Chair: Thomas Béhar (Actuarial Association of Europe)

14.00 – 16.00, CHANNEL 1

AFIR-ERM 13

Macro-Prudential Surveillance beyond Banking: Recent Developments and Perspectives
★ Benjamin Weigert (Director General, Deutsche Bundesbank)
START 14.00

IAA Risk Book
Sam Gutterman (self-employed)
Eberhard Müller (riskmueller consulting)
Dave Sandberg (Allianz)
Stuart Wason (former OSFI)
START 16.00

Session Chair: Angelika May (Carl von Ossietzky University of Oldenburg)

14.00 – 16.00, CHANNEL 3

AFIR-ERM 14

Architecture of Internal Models
Tigran Kalberer (Milliman)
START 14.00

Economic IRR and Its Application
Naoki Sunamoto (Fukoku Mutual Life)
START 14.40

Temporal Clustering and Renewal Processes in Empirical and Modelled Data
David Baumgartner (Swiss Re)
Stefan Reimann
START 15.20

Session Chair: Oskar Goecke (TH Köln - University of Applied Sciences)

14.00 – 16.00, CHANNEL 6

ASTIN 9

ASTIN/DGVFM Day on "Uncertainties"

Traveling the Bridge between Actuarial Practice and Academia: Some Personal Examples
★ Paul Embrechts (Professor of Insurance Mathematics, ETH Zurich)
START 14.00

Validating Risk Models Using PIT Values
★ Alexander McNeil (Professor of Actuarial Science, University of York)
START 15.00

Session Chairs: Matthias Scherer (Technical University of Munich),
Alfred Müller (University of Siegen)

14.00 – 16.00, CHANNEL 2

HEALTH 4 • LIFE

An Universal Actuarial Model to Improve Health and Lower Costs
Ken Beckman (Central States Indemnity)
START 14.00

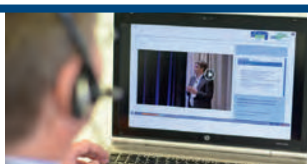
Health Insurance and Prevention: Using Customer Behavior Study and Targeting in Order to Maximize the Effectiveness of Prevention Programs
Céline Blattner (ACTUARIS)
Jean-Louis Rullière (Claude Bernard University, Lyon 1)
START 14.30

Health System Designs: An Integrated Approach to Archieving UHC with Multiple Stakeholders, Focusing on the Working Poor in Developing Countries
Anne Drouin (International Labour Organization)
Lisa Morgan (International Labour Organization)
START 15.00

Role of Medical Advances in Population Longevity Improvement – A Case Study on Statins
Elena Kulinskaya (University of East Anglia, Norwich)
START 15.30

Session Chair: Jan-Phillip Schmidt (TH Köln – University of Applied Sciences)

14.00 – 16.00, CHANNEL 4



LIFE 10 • ASTIN PENSIONS

On Cash Flows Dependent on Investment Returns in Life and Pension Insurance
Kristian Buchardt (PFA Pension)
★ Thomas Møller (PFA Pension)
START 14.00

Longevity Bond Pricing in Equilibrium
Petar Jevtic (Arizona State University)
START 14.30

Unisex Tariffs: Equilibria, Social Welfare and Implications
Jörn Sass (University of Kaiserslautern)
START 15.00

Empirical Bayes Credibility for the Classic Markov Chain Life Insurance Setting
Christian Furrer (University of Copenhagen, PFA Pension)
START 15.30

Session Chair: Johannes Lörper (German Association of Actuaries, DAV)

14.00 – 16.00, CHANNEL 8

PENSIONS 6

PENSIONS/IVS Session on Pure DC in Germany

DC in a DB Country
★ Heribert Karch (Managing Director, Metallrente)
START 14.00

Pure DC in Germany – Justification, Specification and Stakeholders' Feedback
Stefan Oecking (Mercer)
START 14.24

Pure DC in Germany – How Does It Work?
Thomas Hagemann (Mercer)
Georg Thurnes (Aon Hewitt)
START 14.48

Pure DC in Germany – General Regulations and Implementation of Asset Management
Reiner Dietz (HQ Trust)
START 15.12

Comparison of New German Pure DC with DC Plans in Other Countries
Jürgen Fodor (Willis Towers Watson)
START 15.36

Session Chair: Richard Herrmann (HEUBECK)

14.00 – 16.00, CHANNEL 5

PROFESSIONALISM 5

Future of the Profession

Actuary 4.0
Peter Devlin (Deloitte)
START 14.00

The Future Actuary – Are we Ready?
Jules Gribble (International Association of Insurance Supervisors)
Lesley Traverso (Talent Insights)
START 14.30

The Robots Are Coming: The Future of the Actuary
Caroline Bennet (Deloitte)
Darryl Wagner (IAA Advice and Assistance Committee)
START 15.00

The Young Actuaries' Toolkit
Nikhil Asnani (Guardian Life Limited)
Tim Vieyra (Comotion)
START 15.30

Session Chair: Gábor Hanák (International Actuarial Association)

14.00 – 16.00, CHANNEL 7

AFIR-ERM 15 • ASTIN

ACT. DATA SCIENCE

Cyber Risk: Actuarial Economic Theory of Cyber Risk
★ Shaun Wang (Professor of Actuarial Science, Nanyang Technological University)

Session Chair: Aristid Neuburger (msg life)

16.30 – 18.30, CHANNEL 2

AFIR-ERM 16

A Statistical Perspective on Catastrophe Models
Mathias Raschke (R+V)
START 16.30

Climate Change and Mortality
Sam Gutterman (self-employed)
START 17.00

Actuaries Climate Index and SOA Climate Research
Dale Hall (Society of Actuaries)
START 17.30

Modelling the Frequency and Severity of Cyber Incidents
Christos Mitas (Risk Management Solutions)
START 18.00

Session Chair: Hansjörg Albrecher (University of Lausanne)

16.30 – 18.30, CHANNEL 7

ASTIN 12

Insurability of Non-Life Risks
Maria Heep-Altiner (TH Köln – University of Applied Sciences)
START 16.30

Actuarial and Risk Communication – An Introduction on How to Better Interact With Your Business Partners
Caroline Grégoire (CG4 Coaching)
START 17.00

Walter Saxer-Versicherungs-Hochschulpreis (Insurance prize)
Stochastic Loss Reserving with Emphasis on the Bornhuetter-Ferguson Method
Annina Saluz (AXA)
START 17.30

The Determination of Optimal Prices for Insurance Products
Holger Theismann (Helvetia)
START 18.00

Session Chair: Eberhard Müller (riskmueller consulting)

16.30 – 18.30, CHANNEL 3

HEALTH 5 • LIFE

ACT. DATA SCIENCE

4

Technology Changes – And How the Work of Actuaries is Becoming Even More Critical to the Insurance Industry
Jürgen Huschens (Industry Technical Leader, IBM)
START 16.30

An Overview of Enhanced Statistical Models Used in Healthcare Analysis with a Focus on Providers
Fabian Winter (Head of Health Analytics, Munich Re)
START 17.10

Predicting the Occurrence and Progression of Illnesses in Individuals
Daniela Rode (RISK-CONSULTING Prof. Dr. Weyer)
START 17.50

Session Chair: Steven Bishop (Munich Re)

16.30 – 18.30, CHANNEL 4

LIFE 12 • PENSIONS

1

Review of the German Annuity Table – Mathematical Methods and Actuarial Considerations
Franziska Föllmer (ERGO)
Johannes Lörper (German Association of Actuaries, DAV)
START 16.30

Latest in SOA Mortality Research
Dale Hall (Society of Actuaries)
START 17.00

Is the Party Over for Mortality Improvements?
Paul Murray (Swiss Re)
START 17.30

Home Equity Release for UK Seniors: A Twenty-First Century Product Design
Douglas Andrews (University of Waterloo)
START 18.00

Session Chair: Thorsten Hiester (Allianz)

16.30 – 18.30, CHANNEL 1

SOCIETY OF ACTUARIES®

LIFE 13 • PENSIONS

8

LIFE/DGVFM Day

Pension Saving Decision Making under Lifetime and Investment Uncertainty
Mogens Steffensen (Professor of Life Insurance Mathematics, University of Copenhagen)
START 16.30

GAUSS Prize Lectures of DAV and DGVFM
Planning for Individual Retirement: Optimal Consumption, Investment and Retirement Timing under Different Preferences and Habit Persistence
Felix Hentschel (Viadico)
START 17.10

ICA 2018 Best Paper Award – Mathematical Aspects of Emerging Risks
Pricing of Cyber Insurance Contracts in a Network Model
ICA
Matthias Fahrenwaldt (Heriot-Watt University, Edinburgh)
Stefan Weber (Leibniz University of Hannover)
Kerstin Weske (Leibniz University of Hannover)
START 17.50

DAV
DEUTSCHE AKTUARVEREINIGUNG e.V.

Session Chairs: Matthias Scherer (Technical University of Munich), Alfred Müller (University of Siegen)

16.30 – 18.30, CHANNEL 8

DGVFM
DEUTSCHE GESELLSCHAFT FÜR VERSICHERUNGS-UND FINANZMATHEMATIK e.V.

PENSIONS 8 • AFIR-ERM LIFE

DEMO. CHANGE

5

PENSIONS/IVS Session on Mortality and Longevity

An International Look at Recent Trends in Longevity – Where and Why is Life Expectancy No Longer Increasing and What Impact Might Recent Longevity Trends Have?
Brian Ridsdale (IAA Mortality Working Group)
START 16.30

Mortality Development in Pensions – Data Basis, Models and Results in UK and Germany
Richard Herrmann (HEUBECK)
Cathy Love Soper (Barnett Waddingham)
START 17.00

Development of Mortality Tables Covering Multinational Populations – The Case of the UN Pension Fund
Stuart Schulman (Conduent HR Services)
START 17.30

Unraveling Relevant Risk Factors Explaining Pension Fund Mortality: A Case Study in the Netherlands
Frank van Berkum (University of Amsterdam)
START 18.00

Session Chair: Susanna Adelhardt (Evonik Industries)

16.30 – 18.30, CHANNEL 5

IVS
INSTITUT DER VERSICHERUNGSMATHEMATISCHEN SACHVERSTÄNDIGEN FÜR ALTERSVERSORGUNG e.V.

IAA AAI IAALS Life & Annuities

IAA AAI IACA Consulting Actuaries

IACA 5 • PROFESSIONALISM

BEH. INS. & CUST. CENT.

6

IACA Jubilee

Improving Actuarial Communication
Zachary Brown (Milliman)
START 16.30

A Toolbox for a Professional Communication with Non-Actuaries
Matthias Bonikowski ({m}bonikowski)
START 17.00

The Actuary in the Courts
Ignacio del Barco Martinez (CPPS)
START 17.30

Outsourcing Actuarial Functions – Do’s and Don’ts
Dieter Köhnlein (Mazars)
Michael Tripp (Mazars)
START 18.00

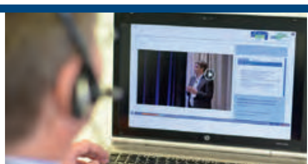
IACA Jubilee – Max Lander Award

Session Chair: Cathy Lyn (Duggan Consulting)

16.30 – 18.30, CHANNEL 6

IAA AAI IACA Consulting Actuaries

ACTUARIAL SOCIETY OF SOUTH AFRICA



ICA CIA BERLIN 2018

AFIR-ERM 18

DEMO. CHANGE

2

ICA 2018 Best Paper Award – Long-Term Risk: Modelling, Measuring, Managing and Economic Valuation
Assessing the Economic Impact of Longevity Hedges
Andrew Cairns (Heriot-Watt University, Edinburgh)
START 8.30

ICA 2018 Best Paper Award – Demographic Change and Longevity
A Class of Random Field Memory Models for Mortality Forecasting
Yahia Salhi (ISFA, Claude Bernard University, Lyon 1)
START 9.00

The Implications of Mortality Heterogeneity on Longevity Sharing Retirement Income Products
Andrés Villegas (UNSW Sydney)
START 9.30

Market Price of Longevity Risk for a Multi-Cohort Mortality Model with Application to Longevity Bond Option Pricing
Jonathan Ziveyi (UNSW Sydney)
START 10.00

Session Chair: Rudi Zagst (Technical University Munich)

8.30 – 10.30, CHANNEL 2

AFIR-ERM 19

8

AFIR-ERM/EAJ Session

The European Actuarial Journal
Ralf Korn (University of Kaiserslautern)
START 8.30

Perspectives on Bridging Actuarial Theory and Practice
★ Hansjörg Albrecher (Professor of Actuarial Science at University of Lausanne)
START 9.10

ICA 2018 Best Paper Award – Big Data Analytics – Algorithms, Analysis and Application
Neural Networks Applied to Chain-Ladder Reserving
Mario V. Wüthrich (ETH Zurich)
START 9.50

Session Chair: Christian Hipp (Editor in Chief EAJ)

8.30 – 10.30, CHANNEL 8

ASTIN 14

3

Data Based Storm Modelling
Carina Götzen (Meyerthole Siems Kohlruss)
START 8.30

Advanced Modelling for Flood Insurance in Europe
Laurent Marescot (Risk Management Solutions)
START 9.00

NatCat Modelling
Bernhard Reinhardt (AIR Worldwide)
START 9.30

Accounting For Climate Change in Catastrophe Models
Peter Sousounis (AIR Worldwide)
START 10.00

Session Chair: Alexander McNeil (University of York)

8.30 – 10.30, CHANNEL 3

ASTIN 15 • AFIR-ERM

ACT. DATA SCIENCE

Machine Learning vs. Actuarial Methods in Claim Prediction
Friedrich Loser (Techniker Krankenkasse)
START 8.30

Fatal Shock Models in Large Dimensions
Matthias Scherer (Technical University of Munich)
START 9.00

Practical Use of Machine Learning in Non-Life Pricing – Smart Price Architecture
Clemens Frey (PwC)
★ Frank Schönfelder (Head of Technical Underwriting, Actuarial and Data Science, ERGO Mobility Solutions)
START 9.30

Actuarial Challenges in an Insurtec
Dieter Kiesenbauer (FRI:DAY)
START 10.00

Session Chair: Viktor Sandor (Rosenheim University of Applied Sciences)

8.30 – 10.30, CHANNEL 7

HEALTH 6

Medical Inflation and Health Insurance
★ J.-Matthias Graf von der Schulenburg (Director, Institute for Risk and Insurance at University of Hannover)
START 8.30

The Medicalization Hypothesis, Drug Related Expenses and the Demographic Change
Christian O. Jacke (Scientific Institute of the Private Health Insurance)
★ Frank Wild (Director, Scientific Institute of the Private Health Insurance)
START 9.10

Predicting Survival of Patients in Hospice Using Time-Dependent Survival Models
Ian Duncan (University of California, Santa Barbara)
START 9.50

Session Chair: tba

8.30 – 10.30, CHANNEL 4

LIFE 14 • HEALTH

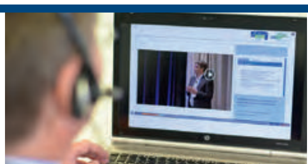
Securities Lending in Insurance
★ Enrico Biffis (Associate Professor of Actuarial Finance, Imperial College Business School London)
START 8.30

Different Benefit Triggers and Their Impact on Long-Term Care Life Insurances
★ Thorsten Hiester (Senior Actuarial Analyst, Allianz)
START 9.30

Session Chair: Thomas Møller (PFA Pension)

8.30 – 10.30, CHANNEL 1

ACTUARIAL SOCIETY OF SOUTH AFRICA



ICA CIA BERLIN 2018

PENSIONS 11

Pension Systems for International Organizations

United Nations Joint Staff Pension Fund
Carolyn Kaiser (United Nations Joint Staff Pensions Fund)
★ Denis Latulippe (Chairman of the Committee of Actuaries of the United Nations Joint Staff Pensions Fund and Laval University Québec)
START 8.30

Panel Discussion
Peter Devlin (Deloitte)
★ Gurvan Le Guern (European Patent Office)
START 9.30

Moderation: Alfred E. Gohdes (Rentenberatung Gohdes)

Session Chair: Klaus Heubeck (HEUBECK)

8.30 – 10.30, CHANNEL 5

IACA 6 • PENSIONS

Low Investment Returns and the Expected Impact on Retirement Savings –
How the Low Investment Return Expectations Impact the Retirement Savings Planning
Alfred E. Gohdes (Rentenberatung Gohdes)
START 8.30

Defined Benefit Pension Plan Funding and the Role of Actuaries
Charles Cowling (JLT Employee Benefits)
START 9.00

Target Benefits – A Bold Innovation in Pension Plan Design
Randy Bauslaugh (McCarthy Tétrault)
START 9.30

Pension Splitting on Break-Down of Marriage-Like Relationships
Nicola Döring (Generali)
Nigel Sloam (Nigel Sloam & Co Actuaries and Consultants)
Paul Timmins (Willis Towers Watson)
Moderation: Korbinian Meindl (Neuburger & Partner)
START 10.00

Session Chair: Korbinian Meindl (Neuburger & Partner)

8.30 – 10.30, CHANNEL 6

PLENARY SESSION IV

Future of Mobility
Forecast of Future Developments
★ Alexander Sixt (Member of the Executive Board (CAO), Sixt)
START 11.00

Consequences for Insurance Industry
★ Frank Sommerfeld (Member of the Board of Management, Allianz)
START 11.45

★ Moderation: Bernhard Lang (Member of Board of Directors, msg systems)

11.00 – 12.30, CHANNEL 1

AFIR-ERM 22

Expectiles, Omega Ratios and Stochastic Dominance
Alfred Müller (University of Siegen)
START 8.30

Solutions to Biometric, Mortality and Longevity Risks
★ Stéphane Loisel (Professor at ISFA, Claude Bernard University, Lyon 1)
START 9.10

Managing Risk and Uncertainty at Munich Re
★ Bernhard Kaufmann (Group Chief Risk Officer, Munich Re)
START 9.50

Session Chair: Matthias Scherer (Technical University of Munich)

8.30 – 10.30, CHANNEL 2

AFIR-ERM 23

Bob Alting von Geusau Prize
Consistent Yield Curve Prediction
Josef Teichmann (ETH Zurich)
Mario V. Wüthrich (ETH Zurich)
START 8.30

Behavioral Characteristics of a Unique Group of Individuals
Loïc Berger (IÉSEG School of Management, Lille)
START 9.10

Part of the Problem or Part of the Solution – Are Actuaries Carbon Neutral?
Esko Kivisaari (Finance Finland)
START 9.50

Session Chair: Michael Sherris (UNSW Sydney)

8.30 – 10.30, CHANNEL 7

AFIR-ERM
Finance, Investment & ERM

ASTIN 16

ACT. DATA SCIENCE

A Generalized Loss Ratio Method Dealing with Uncertain Volume Measures
Ulrich Riegel (Munich Re)
START 8.30

Valuation of Non-Life Liabilities from Claims Triangles
Mathias Lindholm (Stockholm University)
START 9.00

Reserving 4.0 – A Vision of Real-Time Reserving
Marcel Wiedemann (Esslingen University of Applied Sciences)
START 9.30

Capital Relief Criteria Derivation for Comparing the Economic Efficiency of Reinsurance Risk Transfer Instruments
Benjamin Schannes (Mercer)
START 10.00

Session Chair: Roger Hayne (University of California, Santa Barbara)

8.30 – 10.30, CHANNEL 3

AFIR-ERM
Finance, Investment & ERM

ASTIN
Non-Life Insurance

ASTIN 17 • EDUCATION

Integrating Core Non-Life Actuarial Activities by Incorporating Individual Policy Risk
Yoeri Arnoldus (Deloitte)
Jurjen Boog (Deloitte)
START 8.30

Application of Classical Reserving Techniques alongside Machine Learning Algorithms and Big Data
Satraajeet Mukherjee (Ernst & Young)
Anushree Vijayaraghavan (Ernst & Young)
START 9.00

Excess Frequency Fitting for Long Tailed Risks
Markus Knecht (Exin Re)
START 9.30

ASTIN General Meeting and Closing Ceremony
START 10.00

Session Chair: Frank Cuypers (Prime Re)

8.30 – 10.30, CHANNEL 6

HEALTH 7

Optional Covers in German Public Health Insurance
★ Hanno Reich (Consultant Life & Health 6, Munich Re)
START 8.30

Approaches to Capital Requirements in Health Insurance
★ Hanno Reich (Consultant Life & Health 6, Munich Re)
START 9.00

Results of the 3rd High Cost Claims Analysis of Phi in Germany
Jürgen Fischer (Munich Re)
START 9.30

Alternative Payment Models for High Cost Curative Therapies
Joanne Buckle (Milliman)
Didier Serre (Milliman)
START 10.00

Session Chair: Frank Wild (Scientific Institute of the Private Health Insurance)

8.30 – 10.30, CHANNEL 4

LIFE 15

ACT. DATA SCIENCE

Genetics and Life Insurance
Jessica Chen (Westpac Banking Corporation)
Damjan Vukcevic (University of Melbourne)
START 8.30

The Importance of Genetics on Mortality and Morbidity Risk in the Presence of Detailed Health and Lifestyle Data – A Study Based on Half a Million Lives in the UK Biobank Cohort
Peter Banthorpe (RGA)
Cathryn Lewis (King's College London)
START 9.30

Session Chair: tba

8.30 – 10.30, CHANNEL 1

PENSIONS 12

Risk Management and Solvency

5

The Impact of Risk Classification in Life & Pension under Solvency II:
An Analysis of Underwriting Risk, Underwriting Costs and Classification Systems
Alexander Bohnert (University of Erlangen-Nuremberg)
START 8.30

Biometric Risks in Pension Block Portefeuilles
Sven Wiesinger (Hannover Re)
START 9.00

Examining Pension Plan Risk in an Economic Capital Framework
Steve Bonnar (University of Waterloo)
Aniketh Pittea (University of Kent)
START 9.30

Determination of Retirement and Eligibility Ages: Actuarial, Social, and Economic Impacts
Assia Billig (IAA Population Issues Working Group)
START 10.00

Session Chair: Mirko Kraft (Coburg University of Applied Sciences and Arts)

8.30 – 10.30, CHANNEL 5

IACA 7 • ASTIN LIFE PENSIONS

ACT. DATA SCIENCE

8

History of Economic Scenario Generators
Parit Jakhria (Prudential)
START 8.30

The FSB's Recommendations for Financial Disclosure of Climate Risk
Sam Gutterman (self-employed)
START 9.00

Actuarial Data Science Versus Data Protection – Update against the Background of the General Data Protection Regulation
Stefan Nörtemann (msg life)
START 9.30

Blockchain – A New Technology with High Impact on Insurance?
Mathias Ott (HBA-Consulting)
START 10.00

Session Chair: Kudzai Chigiji (Africans Thinking)

8.30 – 10.30, CHANNEL 8

PLENARY SESSION V

1

Panel Discussion: Future of Regulation

- Gabriel Bernardino (Chairman of the European Insurance and Occupational Pensions Authority, EIOPA)
- Yannick Hausmann (Group General Counsel, Zurich Insurance Group)
- Felix Hufeld (President of the German Federal Financial Supervisory Authority, BaFin)
- Patrick Raaflaub (Group Chief Risk Officer and Member of the Group Executive Committee, Swiss Re)
- Moderation: Nils Dennstedt (Partner Deloitte, B&W Deloitte)

11.00 – 12.30, CHANNEL 1

FRIDAY

Passing the Baton on to Sydney – Closing
12.30 – 13.00, CHANNEL 1

1

SELECTED INTENSIFIED BREAKOUT SESSIONS

2

AFIR-ERM 25

Pricing Pension Buy-Outs under Stochastic Interest and Mortality Rates
Ayse Arik (Heriot-Watt University, Edinburgh)
START 14.00

A Method to Determine Model Points with Cluster Analysis
Yosuke Goto (Meiji Yasuda Life Insurance)
START 15.00

Session Chair: Andrew Cairns (Heriot-Watt University, Edinburgh)

14.00 – 16.00, CHANNEL 2

ASTIN 18

3

IBNR Robot – An Actuarial Application on Artificial Intelligence
Shu Yi Lim (Nicholas Actuarial Solutions)
Nicholas Chee Lek Yeo (Nicholas Actuarial Solutions)
START 14.00

Multi-Year Non-Life Insurance Risk – A Case Study
Lukas Hahn (Ulm University, Institute for Financial and Actuarial Science Ulm, ifa)
Marc Linde (BELTIOS)
START 14.30

Marine Insurance Trends – Challenges and Opportunities for Actuaries
Astrid Seltmann (Nordic Association of Marine Insurers (Cefor))
START 15.00

Analyzing the Disconnect between the Reinsurance Submission and Global Underwriters' Needs
Ana Mata (MatBlas)
START 15.30

Session Chair: Adrian Ericsson (Dynamo Analytics)

14.00 – 16.00, CHANNEL 3

HEALTH 8 • LIFE

6

Capital Funding versus Pay-As-You-Go in Long-Term Care Financing
Christine Arentz (Scientific Institute of the Private Health Insurance)
★ Frank Wild (Director, Scientific Institute of the Private Health Insurance)
START 14.00

Long-Term Care Reform in Germany – At Long Last
Sabrina Link (Gen Re)
START 14.30

Planning Model for the Training of Medical Specialists for the Care of Old Age
Carlos Contreras Cruz (Inter-American Center for Social Security Studies)
START 15.00

IAA AAI AFIR-ERM Finance, Investment & ERM

IAA AAI ASTIN Non-Life Insurance

Long-Term Care: An Actuarial Perspective on Societal and Personal Challenges
Sam Guttermann (self-employed)
START 15.30

Session Chair: Frank Wild (Scientific Institute of the Private Health Insurance)

14.00 – 16.00, CHANNEL 6

HEALTH 9 • LIFE

ACT. DATA SCIENCE

7

Pre-Funding Healthcare Benefits after Retirement
Ibrahim Muhanna (i.e. Muhanna & Co)
START 14.00

An Analytical Framework for Medical Trends and Potential Mitigations
★ Stephen Bishop (Head of the Health Corporate Underwriting Department, Munich Re)
START 14.30

Health Actuaries and Big Data
Ian Duncan (University of California, Santa Barbara)
START 15.00

Application of Machine Learning in Health Insurance to Reduce Claims Leakage and Improve Underwriting
Anitya Ajmani (Ernst & Young)
Satraajeet Mukherjee (Ernst & Young)
START 15.30

Session Chair: Hanno Reich (Munich Re)

14.00 – 16.00, CHANNEL 7

LIFE 18 • HEALTH PENSIONS

1

IAA Section Best Paper Awards – LIFE

Extension, Compression and Beyond – A Unique Classification System for Mortality Evolution Patterns
Martin Genz (Ulm University, Institute for Financial and Actuarial Science Ulm, ifa)
START 14.00

Modelling Old Age Mortality Rates: An Extrapolation Method Based on the Mode and the Compression of Mortality
Santiago Fiallos (PwC)
Vincent Noel (PwC)
START 14.30

A New Toolkit for Mortality Data Analytics
Sarah Krömer (University of Erlangen-Nuremberg)
START 15.00

A Set of New Stochastic Trend Models
Johannes Schupp (Ulm University, Institute for Financial and Actuarial Science Ulm, ifa)
START 15.30

Session Chair: Wilhelm Schneemeier (German Association of Actuaries, DAV)

14.00 – 16.00, CHANNEL 1

IAALS Life & Annuities

FRIDAY

IAALS Life & Annuities

IACA Consulting Actuaries

PENSIONS 14

Aspects of Retirement

A Coverage Factor for Managing Elderly Pension Benefits
Iñaki De La Peña (University of the Basque Country)
START 14.00

On Discount Rates in Valuing Defined Benefit Plan Obligation
Mitsuko Nakajima (Mitsubishi UFJ Trust and Banking)
START 14.30

Retirement Choices in the Netherlands
Dirk Kuijpers (Futurama)
START 15.00

Quantifying Longevity Risk in Annuities by Means of the Generalized Age-Period-Cohort Model
Peter Vekas (Corvinus University of Budapest)
START 15.30

Session Chair: Alexander Bohnert (University of Erlangen-Nuremberg)

14.00 – 16.00, CHANNEL 4

PENSIONS 15

Risk Management and Sustainability

Retirement – A New Frontier of the Over 80s Market
Jules Gribble (International Association of Insurance Supervisors)
Cary Helenius (Equity Risk Management)
START 14.00

Financial Sustainability of the Algerian Retirement System: A Perspective Analysis of the 50 Upcoming Years
Farid Flici (Centre for Research in Applied Economics for Development)
START 14.30

20 Years After the Pension Reform
Carmen Fernandez (Mexican Social Security Institute)
START 15.00

Alone Stage of Retirement
Lori Curtis (University of Waterloo)
START 15.30

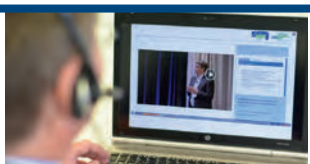
Session Chair: Ralf Knobloch (TH Köln – University of Applied Science)

14.00 – 16.00, CHANNEL 8

IACA 8 • AFIR-ERM LIFE PENSIONS

IAA Section Best Paper Award – IACA (Consulting)
Integrated Risk Management in Practice
Marian Elliott (Redington)
START 14.00

Lessons Learnt from the Ongoing IFRS 17 Implementation in Asia-Pacific
Steve Cheung (Ernst & Young)
START 14.30



Banking Actuaries: The South African Experience
Michael Tichareva (National Standard)
START 15.00

The Impact of Public Pensions and Health Care on Fiscal Sustainability on Small Island Developing States in the Caribbean
Ravi Rambarran (Sagicor Financial Corporation)
START 15.30

Session Chair: Brent Walker (Brent Walker Actuarial Services)

14.00 – 16.00, CHANNEL 5

IACA Consulting Actuaries

EXCLUSIVE CONTENT VIRTUAL ICA 2018

AFIR-ERM

Australian Investment Performance 1959 to 2017 and Investment Assumptions for Stochastic Models
Colin Grenfell (SuperEasy Pty Ltd)
00:51, IACA (CONSULTING)

Social Discounting
Sam Gutterman (self-employed)
0:31, ASTIN, IACA (CONSULTING)

A Strategy Based Investigation into South African Interest Bearing Variable-term Unit Trusts' Performances for the Period 30 November 2001 to 31 March 2016
Mark Hayes (Curtin University)
0:29, AFIR-ERM

The Diversified Efficient Frontier
Thomas Heinze (Provinzial Rheinland)
0:20, AFIR-ERM

Asset Liability Modeling for Insurance and Pensions Considering Correlations between Mortality Risk and Financial Risks
Takayuki Igawa (PwC)
0:30, AFIR-ERM, LIFE, PENSIONS

Multi-product Optimization: Challenges and Opportunities
Drew Lawyer (Earnix)
0:39, AFIR-ERM

Daily Solvency Monitoring
Michael Leitschkis (Milliman)
0:28, LIFE

Proposal of a Erm Framework for the Analysis and Management of the Trend Breaks – Application for Biometric and Behavioral Factors
Fatoumata Ndoye (Institut des Actuaires)
0:17, ASTIN, IACA (CONSULTING)

Is Model Risk Worth Worrying About? An Empirical Analysis of Model Risk in the Case of Structured Financial Products
David Shkel (University of Hagen)
0:27

A Robust Modification of the EIOPA Standard for Risk Free Term Structure of Interest Rates Based on Smith-Wilson Method
Sergey Smirnov (Financial Engineering & Risk Management Lab, Research University Higher School of Economics)
0:25, LIFE, PENSIONS

IAA AAI AFIR-ERM Finance, Investment & ERM

IAA AAI ASTIN Non-Life Insurance

EXCLUSIVE CONTENT VIRTUAL ICA 2018

ASTIN

Moment Generating Functions of Discounted Compound Renewal Sums with Archimedean Copulas
Franck Adekambi (University of Johannesbourg/CERAF)
0:14, ASTIN

Can Decentralised Insurance Work without Capital Using Sharing Economy Principles?
Weihao Choo (Munich Re / Macquarie University)
0:21, AFIR-ERM, IACA (CONSULTING)

Re-Thinking Reinsurance
Richard Hartigan (Hiscox)
0:38, ASTIN

Solvency II and Risk Management on the Base of an Actuarial Non-Life Data Model
Maria Heep-Altiner (TH – University of Applied Science)
0:29, AFIR-ERM

Detecting Insurance Fraud
Jonathan Karsenty (PwC)
0:29

An Optimal Reinsurance Management and Dividend Payout Strategy When the Insurer’s Reserve Is an Ito-Levy Process
Sure Mataramvura (University of Cape Town)
0:30, AFIR-ERM

Insurance in a Changing Climate
Melchior Mattens (Arcturus)
0:34

Cluster Analysis of 2015 Great Britain Police Reported Single Vehicle and Front to Rear Accidents
Giulia Padovan (Thatcham Research)
0:28, ASTIN

Automated Construction, Maintenance and Categorisation of Benchmark Loss Curves through Bots
Pietro Parodi (SCOR)
0:35, ASTIN

Triangle-Free Reserving vs Triangle-based Methods: An Empirical Comparison Based on Controlled Data
Pietro Parodi (SCOR)
0:29, ASTIN

Machine Learning Methods to Perform Pricing Optimization. A Comparison with Standard GLMs
Leonardo Petrini
0:27

Feasibility Analysis of the Reinsurance Secondary Market: An Exploratory Study
Ziyan Wang (University of São Paulo)
0:18, ASTIN

EXCLUSIVE CONTENT VIRTUAL ICA 2018

▶ Multi-Objective Optimization, Metaheuristics and Visual Analytics
Nicolas Wesner (Mazars Actuariat)
0:29 ⏱, AFIR-ERM

▶ Valuation of Guaranteed Minimum Death Benefits
Hailiang Yang (University of Hong Kong)
0:32 ⏱, ASTIN

HEALTH

▶ Embedding Wearable Health Technology into the Insurance Industry
Lisa Altmann-Richer (BUPA)
0:27 ⏱, ASTIN, LIFE

▶ Disability Dynamics, Care Home Admissions, and Mortality: Evidence From Two National English Studies to Support Insurance Product Development
Mohamed Elsheemy (University of East Anglia)
0:39 ⏱, HEALTH

▶ Risk Adjustment Modeling for Medical Plans in the United States
Jed Linfield (Healthfirst)
0:28 ⏱, HEALTH

▶ Demographic Change and its Impact on Social Health Plans and Long-term Care Insurance
Thomas Neusius (Wiesbaden Business School/RheinMain University of Applied Sciences)
0:28 ⏱, LIFE

IACA (CONSULTING)

▶ Actuarial Data Science – Combine Classical Statistics and Mathematics with Methods of Machine Learning
Jochen Stark (IBM)
0:19 ⏱, ASTIN, HEALTH, LIFE

▶ The Sword of Gaia and her Trinacria Shield
Brent Walker (Brent Walker Actuarial Services)
1:09 ⏱, ASTIN, HEALTH

LIFE

▶ Sustainability in Life Insurance – how to Analyse the Dynamics of Premium Reserves Under a Principle Based Solvency Regime
Hans-Jochen Bartels (University of Mannheim)
0:10 ⏱, AFIR-ERM

▶ IFRS 17: Presentations of Revenue and Income Statement without Premiums
Luca Bianchi (Aviva Italia Holding)
0:31 ⏱

EXCLUSIVE CONTENT VIRTUAL ICA 2018

Does Claim Intervention Improve Disability Income Claims Experience: Analysis of Impact on Return-to-work
Landi Du Toit (UCT)
0:00 ⏱, HEALTH

▶ An Analysis of the Interaction of Contracts in a Heterogeneous Life Insurance Portfolio
Jonas Eckert (ifa Ulm)
0:33 ⏱, LIFE

▶ Impacts of Management Actions in Life Insurance
Estelle Gerondeau (ACTUARIS)
0:25 ⏱, ASTIN, LIFE

▶ E-Cigarettes: A Hazard or a Help?
Sam Gutterman (self-employed)
0:30 ⏱, HEALTH

▶ Funding Life Insurance Contracts with Guarantees: How Can We Optimally Respond to the Policyholder's Needs?
Peter Hieber (University of Ulm)
0:28 ⏱, ASTIN

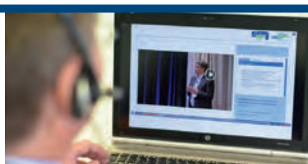
▶ Retirement Guarantees – Are They Worth It?
Beatrice Male (Milliman)
0:32 ⏱, PENSIONS

▶ Lifetime Digital Butler
Kenichi Nogami (Accenture)
0:20 ⏱, AFIR-ERM, ASTIN, HEALTH, PENSIONS

▶ The Value of with-profits for Consumers
Rosalind Rossouw (Sun Life Financial of Canada)
0:16 ⏱, PENSIONS

▶ Stochastic Profit Testing of Life Insurance Companies
Li Shen (emLyon business school)
0:29 ⏱, AFIR-ERM, LIFE

▶ An Alternative Approach for the Key Assumption of Life Insurers and Pension Funds: Embedding Time Varying Experience Factors in Projection Mortality Tables
Janinke Tol (KPMG)
0:34 ⏱, PENSIONS



EXCLUSIVE CONTENT VIRTUAL ICA 2018

PENSIONS

Pension Reform in Brazil: Calculating the Distributive Impacts of the 2016 Government Proposal on the Retirement Benefits of the National Pension Scheme
Luis Eduardo Afonso (University of São Paulo)
0:41

Target Rates of Return in DC Schemes: A Comparison of Latin American Pension Systems for the Period 1997-2016
Denise Gomez-Hernandez (Autonomous University of Queretaro)
0:28

The Impact of the Demographic Bonus in the Pension Systems of Social Security
Daniela Alejandra González Ramírez (Social Security Institute for the Mexican Armed Forces)
0:15, LIFE

Mortality Improvements at Older Ages
Sam Gutterman (self-employed)
0:27, HEALTH, IACA (CONSULTING), LIFE

Increasing the State Pension Age: Actuarial Involvement
Martin Lunnon (Government Actuary's Department)
0:00

Theoretical Replacements Rates and Vulnerable Groups: The Italian Experience on Injured Workers
Raffaello Marcelloni (INAIL)
0:25, HEALTH, PENSIONS

Socialising Defined Contribution
Geoff Rashbrooke (Institute of Governance & Policy Studies)
0:18, PENSIONS

Miles for Retirement
Fernanda Salas (VITALIS)
0:15, IACA (CONSULTING), LIFE, PENSIONS

Forging a New, Solid Social Security System for Greece: The NTS Proposal
Georgios Symeonidis (Hellenic Actuarial Authority)
0:23, LIFE, PENSIONS

PROFESSIONALISM

Professionalism Education in Japan: Methods and Issues
Ikuo Katayose (Resona Bank)
0:21

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