

MAIN TOPICS

ASTIN

Data Science and Big Data Analytics

- Claims settlement
- Telematics
- Building risks especially with regards to geolocation
- Rating based on pattern recognition
- Early warning (App)
- Connecting big data to actuarial problems
- Applications to climate change and Nat-Cat
- Fraud detection

Discount Rate

- Damage inflation vs. negative discount rate
- Impact of inflation on product design and pricing

Experience with Solvency II

- Effects of the actuarial function on management control, with special emphasis on their implementation at national level
- Effects of Solvency II on legacy business in general and the run-off market in particular
- The role of the actuary
- CERA

Product Innovation

- Application for insurance and execution using photos or film
- Rating via film
- Peer-to-peer insurance, sharing economy, crowd insurance
- Decollectivisation
- Reinsurance business model: possibilities and benefits
- How does the relevant client "tick", how do we model his needs? (connection to psychology)
- Potential impact of self-driving cars on the insurance market

Aspects of Insurance Supervision

- Insurance supervision with regard to operational risk (OpRisk)

Reinsurance

- Optimal risk transfer and reinsurance structures
- Innovations in reinsurance and new designs in securitization

Methods

- Alternative pricing methods: what comes after GLM?
- What can we learn (and copy) from other industries (Google, eBay etc.)?
- Non-classical reserving methods, e.g. single damage reserving analogue to calculation
- Classical methods in times of big data
- Comparison of methods that are not accessible to a direct IT solution

Statistical Learning

- Causality in statistical learning, machine learning
- Transfer of methods from other areas (e.g. biology, statistics, medicine, pricing for retailers)

Emerging Risks

- Cyber risks
- Climate change
- Autonomous driving

Claims Reserving

- Dynamic run-off uncertainty
- Granular data and individual reserving
- Market consistent valuation of liabilities

Progress in Simulation

- Efficient simulation of rare events
- Sequential Monte Carlo methods
- Support vector machines

New Insights from old Methods

- Bornhuetter-Ferguson principle
- Credibility theory (see publication by the task force „Tarifierung“)

