

MAIN TOPICS

The following list shows the main topics for the ICA 2018 related to the different special-interest sections. Apart from section-specific topics, the scientific program includes also joint sessions covering cross-section topics. Please note that the list of main topics and sub-topics for the ICA 2018 is not exclusive. Candidates may also submit their own proposals for appropriate topics and sub-topics that are not contained in the list.

AFIR/ERM

Risk Management

- Risk strategy, risk appetite, limit systems
- Performance measurement
- Risk management in extreme scenarios and implications in a macro-economic context (e.g. pro-cyclical effects)
- Governance, communication and influence of risk management on business decisions
- Three years of ORSA experience

Risk Modelling and Valuation

- Pricing, managing and modelling of guarantees
- Approximation techniques (replicating portfolios, curve fitting, LSMC) and their application to the projection of own funds and capital requirements
- Valuation of assets in incomplete markets
- Modelling and assessment of alternative investments
- Economic/interest-rate models: modelling, valuation and implications for business decisions
- Validation of internal models, technical provisions, and model uncertainty
- Architecture of internal models

Investment Management and Asset-Liability Management

- Investment and portfolio strategies under changes in the market environment and customer behavior
- Impact of demographic development on investment decisions
- Optimal hedging strategies and the efficient use of derivatives for long-term risks and commitments

Solutions to Biometric, Mortality and Longevity Risks

- Digitalization, big data, and other trends in pricing, modelling of underwriting risks, preferred underwriting
- Securitization, reinsurance and capital markets
- New sources of mortality improvement (or deterioration) and their implication for the insurance sector

Solvency and Regulatory Environment

- Latest developments concerning Solvency II
- Impact of Solvency II on managing assets & liabilities
- Managing economic and local regulatory demands
- Standard model vs. internal model
- International capital standards (ICS)

Capital Management

- Risk transfer (internal/external)
- Optimal reinsurance structures
- Index-linked securities, investment alternatives that improve capital efficiency
- Reorganization of group structures

Customer Behavior

- Global and individual drivers of customer behavior
- Impact of changes in social, political and financial environment on (savings) behavior
- Mathematical and statistical methods to describe, model and quantify customer behavior
- Methods and solutions to influence customer behavior

Emerging Risks

- New developments (economic, political, business, socio-economic differences, globalization) and resulting emerging risks
- Mathematical and statistical methods to model and quantify emerging risks
- Cyber risk, climate change, autonomous driving, and aging society
- Financial networks, assessment and modelling of complex interdependencies of risks in distressed situations
- Calibration and validation of models given sparse historic data
- Application of models from other industries (e.g. chemical, pharmacy, nuclear, biology) to insurance