Outline of the ICSIM Programme

Monday, June 10		Thursday, June 13	
10.00–17.00	Registration **A_1**	9.00–9.45	Invited lecture **C**
Tuesday, June 11		9.45–10.10	Refreshments **B_1**
8.30–12.30	Registration **A_2**	10.15–11.00	Invited lecture **C**
9.00–9.15	Opening session **C**	11.05–12.05	Invited lecture **C**
9.15–10.00	Invited lecture **C**	12.05–13.30	Lunch **D**
10.00–10.25	Refreshments **B_1**	13.30–15.30	Communications **E**
10.25–11.10	Invited lecture **C**	15.30–16.00	Refreshments **B_2**
11.15–12.00	Invited lecture **C**	16.00–18.00	Communications **E**
12.00–13.30	Lunch **D**	19.30–23.00	Conference Dinner **H**
13.00–18.00	Registration **A_3**	**Friday, June 14**	
13.30–15.30	Communications **E**	9.00–9.45	Invited lecture **C**
15.30–16.00	Refreshments **B_2**	9.45–10.10	Refreshments **B_1**
16.00–18.00	Communications **E**	10.15–11.00	Invited lecture **C**
19.00–21.00	Welcome reception **F**	11.05–11.50	Invited lecture **C**
Wednesday, June 12		12.00–13.30	Lunch **D**
9.00–9.45	Invited lecture **C**	13.30–15.30	Communications **E**
9.45–10.10	Refreshments **B_1**	15.30–16.00	Refreshments **B_2**
10.15–11.00	Invited lecture **C**	16.00–18.25	Communications **E**
11.05–12.00	Invited lecture **C**	18.30–19.00	Farewell refresh. **B_2**
12.00–13.30	Lunch **D**	Late registration: **A_4**	
13.30–17.00	Excursions **G**	Internet: **I**	

Abbreviation used

A_1 – SU, Kräftriket, Department of Mathematics: House 6, Rooms 309–310
A_2 – SU, Kräftriket, School of Business: House 3, near Wallenberg Hall
A_3 – SU, Kräftriket, Department of Mathematics. House 5, near Rooms 14 and 15
A_4 – SU, Kräftriket, Department of Mathematics: House 6, Rooms 309–310 (Wednesday and Thursday, 10.00 – 17.00)

B_1 – SU, Kräftriket, School of Business: House 3, near Wallenberg Hall
B_2 – SU, Kräftriket, Department of Mathematics. House 5, near Rooms 14, and 15
C – SU, Kräftriket, School of Business: House 3, Wallenberg Hall
D – SU, Kräftriket: House 9, Restaurant Kräftan and House 5, Café Matte
E – SU, Kräftriket: House 5, Rooms 14 and 15
F – Stockholm City Hall: Hantverkargatan 1
G – SU, Kräftriket, Department of Mathematics: House 6, near the main entrance
H – Stockholm, Restaurant in the Swedish Photography Museum (Fotografiska): Stadsgårdshamnen 22
I – SU, Kräftriket, Department of Mathematics: House 5, Room 16 (Tuesday – Friday, 8.45 – 18.15) and Wi-Fi zone: SU, Kräftriket, Houses 3, 5, 6 and 9.

ICSIM PROGRAMME

MONDAY, June 10

10.00 – 17.00. **Registration** [Kräftriket, House 6, **Rooms 309 - 310**]

TUESDAY, June 11

8.30 – 12.30. **Registration** [Kräftriket, House 3, **near Wallenberg Hall**. Registration will be continued in Kräftriket, House 5, **near Rooms 14 and 15**, at 13.00 – 18.00]

Invited lectures [Kräftriket, House 3, **Wallenberg Hall**]
Chairman: Dmitrii Silvestrov (Stockholm University, Sweden)

9.00 - 9.15. **Opening session**

9.15 - 10.00. Anders Martin-Löf (Stockholm University, Sweden):
"Cramér Lecture"

10.00 - 10.25. **Refreshments** [**near Wallenberg Hall**]

10.25 - 11.10. Paul Embrechts (ETH, Switzerland) **"Risk Aggregation"**

11.15 - 12.00. Gunnar Andersson (Folksam / KTH Royal Institute of Technology, Sweden) **"Some Mathematical Aspects of the New European Regime in Insurance, New Ideas Regarding Solvency and Occupational Pension through the Eyes of EIOPA"**

12.00 - 13.30. **Lunch** [Kräftriket, House 9; **Restaurant Kräftan**, House 5, **Café Matte**]

Communications [Kräftriket, House 5, **Rooms 14, 15**]

Session "Modern Risk Theory" [Kräftriket, House 5, **Room 14**] Chairmen: Anders Marti-Löf (Stockholm University, Sweden), Dimitrios G. Konstantinides (University of the Aegean, Greece)

13.30 - 13.50. Dimitrios G. Konstantinides and Christos E. Kountzakis (University of Aegean, Greece) **"Risk Measure Theory under Heavy-Tails and Conic Assumptions"**
13.55 – 14.15. Julia Eisenberg (Vienna University of Technology, Austria) **"Maximising Exponential Utility of Restricted Dividend Payments in a Brownian Risk Model"**
14.20 - 14.40. Karin Hirhager, Uwe Schmock, and Jonas Hirz (Vienna University of Technology, Austria) **"Conditional Quantiles, Conditional Weighted Expected Shortfall and Application to Risk Capital Allocation"**
14.45 - 15.05. Christian Y. Robert (Université Lyon 1, France) **"Distortion Risk Measures, Ambiguity Aversion and Optimal Effort"**
15.10 - 15.30. Steven Vanduffel (Vrije Universiteit Brussel, Belgium) Carole Bernard (University of Waterloo, Canada) and Ludger Rüschendorf (University of Freiburg, Germany) **"Value-at-Risk Aggregation When the Variance of the Sum is Known"**

Session "Modelling of Insurance Business" [Kräftriket, House 5, **Room 15**] Chairmen: Kjersti Aas (Norwegian Computing Center, Norway), Robin Lundgren (Invest Systems, Sweden)

13.30 - 13.50. Kjersti Aas and Linda R. Neef (Norwegian Computing

Center, Norway), Dag Raabe and Ingeborg D. Vårli (SpareBank 1 Forsikring, Norway) **"A Simulation-Based ALM Model in Practical Use by a Norwegian Life Insurance Company"**

13.55 - 14.15. Åsa Larson (Swedish Financial Supervisory Authority, Sweden) **"Supervision of Insurance Undertakings and the Underlying Risks"**

14.20 - 14.40. Robin Lundgren (Invest Systems, Sweden) **"Reporting and Control of Risks in the Swedish Fund Industry"**

14.45 - 15.05. Clara-Cecilie Günther, Ingunn Fride Tvete, Kjersti Aas (Norwegian Computing Center, Norway), Jørgen Andreas Hagen and Lars Kvifte (Gjensidige Group, Oslo, Norway), and Ørnulf Borgan (University of Oslo, Norway) **"Predicting Future Claims Among High Risk Policyholders Using Random Effects"**

15.10 - 15.30. Maryna Lundgren (SEB Trygg Liv, Sweden) **"Long Term Disablility Model for Solvency II Purposes"**

15.30 - 16.00. **Refreshments** [Kräftriket, House 5, **near Rooms 14 and 15**]

Session "Mathematical Problems in Life and Non-Life Insurance" [Kräftriket, House 5, **Room 14]** Chairmen: Maria L. Centeno (Technical University of Lisbon, Portugal), Ola Hössjer (Stockholm University Sweden)

16.00 - 16.20. Maria L. Centeno (Technical University of Lisbon, Portugal) and M. Guerra (Technical University of Lisbon, Portugal) **"Optimal Reinsurance Under Coherent Comonotonic Risk Measures"**

16.25 - 16.45. Erland Ekheden and Ola Hössjer (Stockholm University Sweden) **"Modeling Stochasticity of Mortalities"**

16.50 - 17.10. Amel Laouar (Université des Sciences et de la Technologie Houari Boumediene, Algeria) **"Stable Variables in Non Life Insurance"**

17.15 - 17.35. Eliud Silva (Universidad Anáhuac México, México) **"Penalized Least Squares Smoothing of Two-Dimensional Mortality Tables with Imposed Smoothness"**

17.40 - 18.00. Nicholas Frangos and George Tzougas (Athens University of Economics and Business, Greece), and Irini Dimitriyadis (Bahcesehir University, Turkey) **"Design of an Optimal Bonus-Malus System Using the Sichel Distribution as a Model of Claim Counts"**

Session "Modelling of Insurance Business" [Kräftriket, House 5, **Room 15**]
Chairmen: Kjersti Aas (Norwegian Computing Center, Norway), Robin Lundgren (Invest Systems, Sweden)

16.00 - 16.20. Alfred Ka Chun Ma (Chinese University of Hong Kong, China), and Yuen Ki Cheung (J.P. Morgan) **"Solvency Capital Requirement for Insurance Products via Dynamic Cash Flow Matching under Lattice Models"**

16.25 - 16.45 Rajat Kumar Sinha (Insurance Regulatory and Development Authority (IRDA), India) **"Variability in the Level of Concentration in Indian Life Insurance Industry"**

Session "Actuarial Statistics" [Kräftriket, House 5, **Room 15**] Chairmen: Anders Björkström (Stockholm University, Sweden), Michal Pešta (Charles University in Prague, Czech Republic)

16.50 - 17.10. Michal Pešta (Charles University in Prague, Czech Republic) **"Asymptotic Consistency and Inconsistency of the Chain Ladder"**

17.15 - 17.35. Char Leung (La Trobe University, Australia) **"A Moment Test for Log-Normality"**

17.40 - 18.00. Amin Hassan Zadeh (Shahid Beheshti University, Iran) **"Applications of Mixture of Priors in the Bayesian Credibility" / "Fitting Grouped Insurance Data by Phase–Type"**

19.00 - 21.00. **Welcome reception [Stockholm City Hall]**

WEDNESDAY, June 12

Invited lectures [Kräftriket, House 3, **Wallenberg Hall**]
Chairman: Tom Britton (Stockholm University, Sweden)

9.00 – 9.45. Mario Wüthrich (ETH, Switzerland) **"From Ruin Theory to Solvency in Non-Life Insurance"**

9.45 - 10.10. **Refreshments** [**near Wallenberg Hall**]

10.15 - 11.00. Jef Teugels (Catholic University of Leuven, Belgium) **"Some Issues on the Extreme Value Index"**

11.05 - 12.00. Younes Elong / Ellinor Samuelsson (Swedish Financial Supervisory Authority, Sweden) **“Standard Formula – Solvency II / Internal Models – Solvency II”**

12.10 - 13.40. **Lunch** [Kräftriket, House 9; **Restaurant Kräftan**, House 5, **Café Matte**]

13.30 - 17.00. **Excursions** [Kräftriket, near the main entrance to House 6; two bus excursions to **Vasa museum** and **Millesgården**]

THURSDAY, June 13

Invited lectures [Kräftriket, House 3, **Wallenberg Hall**]
Chairman: Ola Hössjer (Stockholm University, Sweden)

9.00 – 9.45. Hanspeter Schmidli (University of Cologne, Germany) **“An Explicit Expression for the Gerber-Shiu Function with an Application to Risk Measures”**

9.45 - 10.10 **Refreshments** [**near Wallenberg Hall**]

10.15 - 11.00. Søren Asmussen (Aarhus University, Denmark) **“Recent Results on the Ruin Time with Heavy Tail”**

11.05 - 12.05. Boualem Djehiche (Royal Institute of Technology, Sweden), Paul Embrechts (ETH, Switzerland), Ragnar Norberg (Université Lyon 1, France) **“SAJ session: Prospects of Future Research in Insurance Mathematics”**

12.05 - 13.30. **Lunch** [Kräftriket, House 9, **Restaurant Kräftan**; House 5, **Café Matte**]

Communications [Kräftriket, House 5, **Rooms 14, 15**]

Special session “Ruin Probabilities -1” [Kräftriket, House 5, **Room 14]**
Chairmen: Ragnar Norberg (Université Lyon 1, France), Søren Asmussen (Aarhus University, Denmark)

13.30 - 13.50. Ragnar Norberg (Université Lyon 1, France) **“Ruin Theory**

Seen Differently: Adapting Premiums to a Prespecified Lundberg Bound"

13.55 - 14.15. Dmitrii Silvestrov (Stockholm University, Sweden) **"Improved Asymptotics for Ruin Probabilities"**

14.20 - 14.40. Ying Ni (Mälardalen University, Sweden) **"Exponential Asymptotical Expansions for Ruin Probability in a Classical Risk Process with Non-Polynomial Perturbations"**

14.45 - 15.05. Eleni Vatamidou (Eindhoven University of Technology, Holland) **"Corrected Phase-Type Approximations for Heavy-Tailed Risk Models in a Markovian Environment"**

15.10 - 15.30. Jean-François Renaud (Université du Québec à Montréal (UQAM), Canada) **"Restructuration, Default and Bankruptcy for Lévy Insurance Risk Processes"**

Session "Mathematical Background for New Insurance Products" [Kräftriket, House 5, **Room 15]** Chairmen: Hanspeter Schmidli (University of Cologne, Germany), Mogens Steffensen (University of Copenhagen, Denmark)

13.30 - 13.50. Iurii Kartashov, Vilaty Golomozy and Mykola Kartashov (Kyiv National Taras Shevchenko University, Ukraine) **"When the Stress Factor Causes Small Changes in the Widow Pension?"**

13.55 - 14.15. Runhuan Feng (University of Illinois at Urbana-Champaign, USA) **"Variable Annuities: Crossing a Bridge From Computational Finance to Quantitative Risk Management"**

14.20 - 14.40. Craig Adams (Heriot-Watt University, U.K.) **"Modelling Adverse Selection in a Start-up Long-Term Care Insurance Market"**

14.45 - 15.05. Jonas Alm (Chalmers University of Technology, Sweden) and Filip Lindskog (KTH Royal Institute of Technology, Sweden) **"Foreign-Currency Interest-Rate Swaps in Asset-Liability Management for Insurers"**

15.10 - 15.30. Helena Aro (Aalto University, Finland) **"Liability-Driven Investment in Longevity Risk Management"**

15.30 - 16.00. **Refreshments** [Kräftriket, House 5, **near Rooms 14 and 15**]

Special session "Risk Models and Applications" [Kräftriket, House 5, **Room 14**]: Chairman: Raimondo Manca (University of Rome "La

Sapienza”, Italy), Guglielmo D’Amico (Università "G. d'Annunzio" of Chieti, Italy)

16.00 - 16.20. Dmitrii Silvestrov (Stockholm University, Sweden), Evelina Silvestrova (Mälardalen University, Sweden) and Raimondo Manca (University of Rome “La Sapienza”, Italy) **“Default Probabilities for Markov Models Describing Credit Ratings Dynamics”**

16.25 - 16.45. Pierre Devolder (Catholic University of Louvain, Belgium) **“Multi Period Risk Measurement for Long Term** Guarantees”

16.50 - 17.10. Guglielmo D’Amico and Giuseppe Di Biase (Università "G. d'Annunzio" of Chieti, Italy), Jacques Janssen (Universitè Libre de Bruxelles, Belgium) and Raimondo Manca (University of Rome “La Sapienza”, Italy) **“A Real Data Application and Cost of Capital Estimation Based on Rating Migration Model”**

17.15 - 17.35. Fulvio Gismondi (University “Guglielmo Marconi”, Italy), Jacques Janssen (Universitè Libre de Bruxelles, Belgium), Raimondo Manca (University of Rome “La Sapienza”, Italy) and Filippo Petroni (University of Cagliari, Italy) **“IBNyR Claims Study by an Alternating Renewal Process Approach”**

17.40 - 18.00 Fulvio Gismondi (University “Guglielmo Marconi”, Italy), Jacques Janssen (Universitè Libre de Bruxelles, Belgium), Raimondo Manca University of Rome “La Sapienza”, Italy) **“Discrete Time Non-Homogeneous Compound Renewal Processes for the G/G Risk Model Solution”**

Session “Mathematical Background for New Insurance Products” [Kräftriket, House 5, **Room 15]** Chairmen: Hanspeter Schmidli (University of Cologne, Germany), Mogens Steffensen (University of Copenhagen, Denmark)

16.00 - 16.20. Rahim Mahmoudvand and Samane Aziznasiri (Mellat Insuarance Company, Iran) **“Bonus-Malus Systems in Open and Close Portfolios”**

16.25 - 16.45. Ezatollah Abbasian and Elham Farzangan (Bu Ali Sina University, Iran) **“Optimal Design of Securitization in a Principal-Agent Relationship Based on Bayesian Inference for Moral Hazard”**

Session “Modern Trends in Actuarial Education” [Kräftriket, House 5,

Room 15] Chairmen: Ohlsson Esbjörn (Länsförsäkringar AB / Stockholm University, Sweden), Andrew Cairns (Heriot-Watt University, U.K.)

16.50 - 17.10. Joanna Tyrcha, Ohlsson Esbjörn, and Gudrun Brattström (Stockholm University, Sweden) **“Master's Programme in Actuarial Mathematics at Stockholm University”**

17.15 - 17.35. Gunnar Andersson (Folksam/KTH, Sweden) **“Life Insurance Mathematics in the Master's Program in Actuarial Mathematics at Stockholm University”**

17.40 - 18.00. Andrew Cairns (Heriot-Watt University, U.K.) **“Actuarial Education in the UK”**

19.30 - 23.00. Conference dinner [Restaurant in the Swedish Photography Museum (Fotografiska)]

FRIDAY, June 14

Invited lectures [Kräftriket, House 3, **Wallenberg Hall**]
Chairman: Joanna Tyrcha (Stockholm University, Sweden)

9.00 – 9.45. Andrew Cairns (Heriot-Watt University, U.K.) **“Robust Modelling and Management of Longevity Risk”**

9.45 - 10.10. **Refreshments** [**near Wallenberg Hall**]

10.15 - 11.00. Mogens Steffensen (University of Copenhagen, Denmark) **“From Utility Optimization to Good Advice and Good Product Design”**

11.05 - 11.50. Erik Alm, (Hannover Re, Sweden) **“Actuarial Education in Sweden and Europe”**

12.00 - 13.30. **Lunch** [Kräftriket, House 9; **Restaurant Kräftan**, House 5, **Café Matte**]

Communications [Kräftriket, House 5, **Rooms 14, 15**]

Special session “Ruin Probabilities -2” [Kräftriket, House 5, **Room 14]**

Chairmen: Jean-François Renaud (Université de Quabéc, Canada), Iurii Kartashov (Kyiv National Taras Shevchenko, Ukraine)

13.30 - 13.50. Mikael Petersson (Stockholm University, Sweden) **"Asymptotics of Ruin Probabilities for Perturbed Discrete Time Risk Processes"**
13.50 - 14.10. Rassoul Abdelaziz (National High School of Hydraulic, Algeria) **"Estimation of the Ruin Probability in Infinite Time for Heavy Right-Tailed Distributions"**
14.10 - 14.25. Jonathan B. Mamplata (University of the Philippines Los Baños, Philippines) and Jose Maria Escaner (University of the Philippines Diliman, Philippines) **"Utility and Ruin Probability Relationship through Premium Equivalence"**
14.25 – 14.40. Lester Charles Umali (University of the Philippines Los Baños, Philippines) and Jose Maria Escaner (University of the Philippines Diliman, Philippines) "**A Compound Poisson Risk Model with Loss-Sensitive Premium"**

Session "Insurance Mathematics and Related Results" [Kräftriket, House 5, **Room 14**]: Chairmen: Zinoviy Landsman (University of Haifa, Israel), José Luís da Silva (University of Madeira, Portugal)

14.45 - 15.05. Zinoviy Landsman (University of Haifa, Israel) **"Minimization of a Function of a Quadratic Functional with Application to Optimal Portfolio Selection"**
15.10 – 15.30. José Luís da Silva (University of Madeira, Portugal) **"Grey Brownian Motion Local Time: Existence and Weak-Approximation"**

Special session "Markov and Semi-Markov Risk Models" [Kräftriket, House 5, **Room 15**]: Chairmen: Raimondo Manca (University of Rome "La Sapienza", Italy), Giuseppe Di Biase (Università "G. d'Annunzio" of Chieti, Italy)

13.30 - 13.50. Guglielmo D'Amico (Università "G. d'Annunzio" of Chieti, Italy) **"Moments Analysis of a Markov-Modulated Risk Model with Stochastic Interest Rates"**
13.50 - 14.10. Alessandro De Gregorio (University of Rome "La Sapienza", Italy) and Claudio Macci (University of Rome "Tor Vergata", Italy) **"Large Deviations for a Damped Telegraph Process"**
14.10 - 14.30. Fulvio Gismondi (University "Guglielmo Marconi", Italy}, Jacques Janssen (Universitè Libre de Bruxelles, Belgium),

Raimondo Manca (University of Rome "La Sapienza", Italy), and Dmitrii Silvestrov (Stockholm University, Sweden) **"Discrete Time Homogeneous Semi-Markov Monte Carlo Reward Risk Process"**

14.30 - 14.50. Marco Micocci and Filippo Petroni (University of Cagliari, Italy) **"Semi-Markov Models for Actuarial Technical Balances of Pension Funds"**

14.50 - 15.10. Alessandro Fiori Maccioni (CRENoS / University of Sassari, Italy) "**A Stochastic Model for New Entrants in Pension Schemes"**

Special session "Claim Reserving" [Kräftriket, House 5, **Room 15**]: Chairmen: Richard Verrall (City University London, U.K.) and Mario Wüthrich (ETH, Switzerland)

15.10 - 15.30. Samuel Herrmann (Université de Bourgogne, France), Geoffrey Nichil and Pierre Vallois (Institut Élie Cartan Lorraine, France) **"Claims Reserving Against Default Risk of Borrowers Based on Exchanges Options"**

15.30 - 16.00. **Refreshments** [Kräftriket, House 5, **near Rooms 14 and 15**]

Session "Insurance Mathematics and Related Results" [Kräftriket, House 5, **Room 14**]: Chairmen: Zinoviy Landsman (University of Haifa, Israel), José Luís da Silva (University of Madeira, Portugal)

16.00 - 16.20. Alexander Melnikov (University of Alberta, Canada) **"CVaR: Partial Hedging and Insurance Applications"**

16.25 - 16.45. Christopher Engström and Sergei Silvestrov (Mälardalen University, Sweden) **"Variations of PageRank and Model Considerations for Different Types of Data"**

16.50 - 17.10. Karl Lundengård and Sergei Silvestrov (Mälardalen University, Sweden), and Carolyne Adhiambo Oguto (University of Nairobi, Kenya) **"Asian Options, Jump Diffusion Processes on a Lattice and Vandermonde Matrices"**

17.15 - 17.35. Hannes Malmberg (Stockholm Univertsity, Sweden) **"Extremal Behaviour, Weak Convergence and Argmax Theory for a Class of Non-Stationary Marked Point Processes"**

Session "Actuarial and Related Software" [Kräftriket, House 5, **Room 14**] Chairmen: Dmitrii Silvestrov (Stockholm University, Sweden), Robin

Lundgren (Invest Systems, Sweden)

17.40 - 18.00. David Humphris (Numerical Algorithms Group (NAG), U.K.) **"Numerical Software and Tools for the Actuarial Community"**

18.05 - 18.25. Oskar Schyberg and Anatoliy Malyarenko (Mälardalen University, Sweden), and Dmitrii Silvestrov (Stockholm University, Sweden) **"A Survey of Actuarial Software"**

Special session "Claim Reserving" [Kräftriket, House 5, **Room 15**]: Chairmen: Richard Verrall (City University London, U.K.) and Mario Wüthrich (ETH, Switzerland)

16.00 - 16.45. María Dolores Martínez Miranda, Jens Perch Nielsen and Richard Verrall (City University London, U.K.) **"Continuous Chain Ladder".** Discussants: Esbjörn Ohlsson (Länsförsäkringar AB / Stockholm University, Sweden) / Ola Hössjer (Stockholm University, Sweden)

16.50 - 17.35. Bent Nielsen (University of Oxford, U.K.), Di Kuang (Hiscox Insurance Company, U.K.) and Jens Nielsen (City University London, U.K.) **"The Geometric Chain-Ladder"**. Discussant: Mario Wüthrich (ETH, Switzerland)

17.40 – 18.25. Katrien Antonio (KU Leuven, Belgium / University of Amsterdam, Holland) **"Individual Loss Reserving with the Multivariate Skew Normal Framework".** Discussant: Richard Verrall (City University London, U.K.)

18.30 - 19.00. Farewell refreshments [Kräftriket, House 5, **near Rooms 14 and 15**]