39th Actuarial Research Conference August 4th – 7th, 2004
Iowa Memorial Union, The University of Iowa, Iowa City

Conference sponsors include AERF Committee of The Actuarial Foundation, American Academy of Actuaries, American Society of Pension Actuaries, AmerUS Group, Canadian Institute of Actuaries, Casualty Actuarial Society, Colegio Nacional de Actuarios, A.C., Conference of Consulting Actuaries, Society of Actuaries, and University of Iowa Department of Statistics and Actuarial Science.

Wednesday, August 4th

5:00-7:00 Welcome Reception and Registration

Thursday, August 5th

8:00-9:30 Registration

8:00-9:00 Continental Breakfast

9:00–10:30 Chair: Jim Broffitt
9:00-9:05 Jim Broffitt
9:05-9:25 Neil Parmenter, President, SOA
9:25-9:30 Harry H. Panjer, Editor, NAAJ
9:30-9:50 Hans U. Gerber, Elias S. W. Shiu
On Optimal Dividends: From Reflection to Refraction
9:50-10:10 Michael Sherris, John van der Hoek
Capital Allocation in Insurance:
Economic Capital and the Allocation of the Default Option Value
10:10-10:30 James M Carson, Chris Clark, Krzysztof M. Ostaszewski
The Economic Aspects of Life Insurance Backdating

10:30–11:00 Coffee break

11:00-12:20 Chair: Esther Portnoy
11:00-11:20 Virginia R. Young, S. David Promislow
Indifference Pricing via the Probability of Ruin
11:20-11:40 Moshe A. Milevsky, Kristen S. Moore, Virginia R. Young
Optimal Asset Allocation and Ruin-Minimization Annuitzation Strategies
11:40-12:00 Sebastian Jaimungal, Virginia R. Young
Pricing Equity Linked Pure Endowments with Risky Asset Following Lévy Processes
12:00-12:20 Qingzhe Zhen
Effects of Dependence among Claim Vectors on the Ruin Probability
in a Multi-dimensional Risk Model

12:20-2:00 Lunch

12:20-2:00 Committee on Knowledge Extension Research
2:00-3:30 Chair: Sam Cox
2:00-2:30 Barry McKeown, Stafford Thompson,
CAS/SOA Minority Recruiting Committee
Summer Actuarial Program for High School Juniors
2:30-2:50 Rick Gorvett
Complexity and Complex Adaptive Systems:
Applications for Actuarial Science, Finance, and Risk Management
2:50-3:10 Hans U. Gerber, Elias S. W. Shiu
On Time Value of Ruin in a Sparre Andersen Model: Ruin Theory by Divided Differences
3:10-3:30 Jeffrey S. Pai
An Empirical Study on Pet Insurance
3:30-4:00 Coffee Break

4:00-5:40 Chair: N. D. Shyamal Kumar
4:00-4:20 Arnold F. Shapiro
Fuzzy Logic in Insurance: The First 20 Years
4:20-4:40 Marie-Claire Koissi
Fitting and Forecasting Mortality Rates for Nordic Countries Using the Lee-Carter Model
4:40-5:00 Edward W (Jed) Frees, Ping Wang
Credibility Theory Using Copulas
5:00-5:20 Jiandong Ren
Managing Catastrophe Risk: An Actuarial Approach
5:20-5:40 Stuart Klugman
2005 Education Redesign
5:40-7:00 Joint CAS/SOA Ph.D. Grants Task Force
6:00-7:30 Reception

Friday, August 6th

7:30-9:00 Continental Breakfast
8:30-10:20 Chair: Larry Miller
8:30-8:40 Curtis Huntington
8:40-9:00 Mathieu Boudreault, H. Cossette, É. Marceau
Modeling Insurance Losses Resulting From Natural Catastrophes
9:00-9:20 H. Cossette, David Landriault, É. Marceau
Ruin Probabilities in the Compound Binomial Model Defined in a Markovian Environment
9:20-9:40 Shuanming Li
On a Class of Discrete Time Renewal Risk Processes
9:40-10:00 Yi Lu, Shuanming Li
On the Probability of Ruin in a Markov-modulated Risk Model
10:00-10:20 Corina Constantinescu, Enrique Thomann
Decay of Ruin Probability under Uncertain Investments
10:20-10:50 Coffee break
10:50-12:30  Chair:  Sam Broverman
10:50-11:10  Vytaras Brazauskas
Another Look at Empirical Estimation of Actuarial Risk Measures
11:10-11:30  Yongtao Laurel Hu
VaR and CTE under Multivariate Pareto Distributions
11:30-11:50  Greg Slone, Steve Craighead
Game Theoretic Analysis of Competitive Rate Setting
11:50-12:10  Hangsuck Lee
Pricing Barrier Options
12:10-12:30  Yu Zhou
On the Existence of an Optimal Regression Complexity in the Least-Square Monte Carlo (LSM) Framework for Options Pricing
12:30-2:00  Lunch
12:30-2:00  NAAJ Editorial Board Meeting
2:00-3:40  Chair:  Steve Paris
2:00-2:20  Kai Chen
Hedging Salary Related Pension Benefits
2:20-2:40  Hongzhen Tian
Pricing and Hedging a Hybrid Pension Plan
2:40-3:00  Samuel H. Cox, Yijia Lin
Natural Hedging of Life and Annuity Mortality Risks
3:00-3:20  Patrice Gaillardetz, X. Sheldon Lin
Consistent Pricing for Equity-Linked Products
3:20-3:40  Dick London
Current Board of Governors Issues of Interest to Academic Actuaries:
Accreditation of University Actuarial Programs and Alternate Route
3:40-4:10  Coffee Break
4:10-5:30  Chair:  David Promislow
4:10-4:30  Yungui Hu, Samuel H. Cox
Modeling Future Mortality Risk from Exposure to a Sudden Extreme Situation and Its Impact on Life Insurance
4:30-4:50  Samid Viveros
Variance of the Loss for Term and Pure Endowment in Actuarial Notation
4:50-5:10  N. D. Shyamal Kumar
Hattendorff Theorem - Yet Another Look
5:10-5:30  Bruce L. Jones
Symbolic Computation of Moments of Loss Random Variables in Discrete Time
6:00  Conference Banquet
6:00-7:00  Cash Bar
7:00  Dinner
After-dinner speaker:  Dick London
Current Board of Governors Issues of Interest to Academic Actuaries:
Accreditation of University Actuarial Programs and Alternate Route (Cont’d)
Saturday, August 7th

7:30-9:00 Education & Research Section Council
7:30-9:00 Continental Breakfast

8:40-10:20 Chair: Hans Gerber
7:30-9:00 H. Cossette, A. Delwarde, M. Denuit, Frédérick Guillot, É. Marceau
Development and Application of the Prospective Mortality Tables in Actuarial Science
9:00-9:20 Adam Kolkiewicz
Smooth Monte Carlo Method for Diffusion Processes
9:20-9:40 Yujia Zhu
Empirical Analysis of Representative Scenario Sampling Algorithms
9:40-10:00 Marjorie A. Rosenberg
Development of Cohort Life Tables for "Other Causes" for Use in Simulation Modeling
10:00-10:20 Ji Eun Choi
Simulated Maximum Likelihood Estimation of Stochastic Volatility Models

10:20-10:50 Coffee break

10:50-12:40 Chair: Mary Hardy
10:50-11:10 K.C. Cheung, H. Yang
Optimal Consumption Strategy in the Presence of Default Risk: Discrete-Time Case
11:10-11:30 Edward Furman, Zinoviy Landsman
Risk Capital Decomposition for a Multivariate Dependent Gamma Portfolio
11:30-11:50 Louis Doray
Estimators for a Generalized Poisson Autoregressive Process of Order 1
11:50-12:10 Andreas Milidonis
Price Regulation in the Automobile Insurance Market: A Discrete-time Markov Chain Model
12:10-12:30 Enrique de Alba, Gilberto Atondo
Claims Reserving When There Are Negative Values in the Runoff Triangle: Bayesian Analysis Using the Three-parameter Log-normal Distribution
12:30-12:40 Concluding Remarks

12:40 Lunch boxes available