### 40th Actuarial Research Conference

**Conference Program**

**Thursday, August 11**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>07:30 - 08:30</td>
<td>Registration and Continental Breakfast (Sponsored by CONAC)</td>
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<tr>
<td>08:30 - 09:15</td>
<td>Welcome by Arturo Fernández, Rector of ITAM, and Opening Session by Act. Luis Huerta, Former President IAA</td>
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<tr>
<td>09:15 - 09:55</td>
<td>Session - Actuarial Education</td>
<td>University of Nebraska</td>
<td>The Work of the SOA Accreditation Implementation Taskforce</td>
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<tr>
<td>09:15 - 09:35</td>
<td>Warren Luckner University of Nebraska</td>
<td>Macquarie University</td>
<td>Mistakes? We've seen a few</td>
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<tr>
<td>09:55 10:15</td>
<td>Mary Hardy University of Waterloo</td>
<td>University of Waterloo</td>
<td>A joined-up syllabus for technical actuarial education</td>
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<tr>
<td>10:15 - 10:40</td>
<td>Coffee Break</td>
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<tr>
<td>10:40 - 12:20</td>
<td>Session - Mathematical Finance</td>
<td>College Solutions</td>
<td>Insurance Capital as a Shared Asset</td>
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<tr>
<td>10:40 - 11:00</td>
<td>Donald Mango GE Insurance Solutions</td>
<td>St Thomas University</td>
<td>A Dynamic Programming Approach to Valuing Reload Executive Stock Options</td>
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<tr>
<td>11:00 - 11:20</td>
<td>Palahela Dayandanda St Thomas University</td>
<td>University of Waterloo</td>
<td>Pricing American options on exponential Levy processes.</td>
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<tr>
<td>11:40 - 12:00</td>
<td>Mark Saxtonov New York Life</td>
<td>University of Waterloo</td>
<td>Pricing of Guaranteed Products for Defined Benefit Pension Funds.</td>
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<tr>
<td>12:00 - 12:20</td>
<td>Jennie La and Christiane Lemieux University of Calgary</td>
<td>University of Calgary</td>
<td>Study of Variance Reduction Techniques for American Option Pricing</td>
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<tr>
<td>12:20 - 14:00</td>
<td>Lunch (Sponsored by Hewitt Associates Mexico)</td>
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<tr>
<td>14:00 - 15:40</td>
<td>Simultaneous Session - Risk Theory</td>
<td>Oregon State University</td>
<td>Tail Index Estimation for Partitioned Insurance Losses</td>
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<td>14:00 - 14:20</td>
<td>John Henry Oregon State University</td>
<td>Munich American Reinsurance Company</td>
<td>A Comparison of Methods for Modeling an Aggregate Life Insurance Claims Distribution</td>
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<tr>
<td>14:20 - 14:40</td>
<td>Sarah Christiansen and Tom Edwalds</td>
<td>FHA/HUD</td>
<td>Applications of Capture-Recapture Methods</td>
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<tr>
<td>14:40 - 15:00</td>
<td>Thomas Herzog</td>
<td>University of Toronto</td>
<td>The Compound Poisson Risk Model with a Threshold Dividend Strategy</td>
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<tr>
<td>15:00 - 15:20</td>
<td>X. Sheldon Lin and Kristina Pavlova</td>
<td>Université Laval</td>
<td>Ruin Measures in Risk Models with Time Dependent Claim Amounts</td>
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<tr>
<td>15:20 - 15:40</td>
<td>Hélène Cossette, Mathieu Boudreault, David Landriault, Etienne Marceau</td>
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<tr>
<td>14:00 - 15:40</td>
<td>Simultaneous Session - Analysis of Mortality and Related Risks</td>
<td>University of Waterloo</td>
<td>The Canadian Insured Lives Investigation</td>
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<td>14:00 - 14:20</td>
<td>Johnny Li</td>
<td>University of Toronto</td>
<td>Phase-type law of mortality</td>
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<td>14:20 - 14:40</td>
<td>X. Sheldon Lin and Xiaoming Liu</td>
<td>University of Iowa</td>
<td>A Poisson Regression Model for Mortality Data</td>
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<td>14:40 - 15:00</td>
<td>N. D. Shyamalkumar</td>
<td>ITAM</td>
<td>Mortality Under Standard Individually Life Insurance Between 1999 and 2002 Anniversaries</td>
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<td>15:00 - 15:20</td>
<td>Jorge Rendon</td>
<td>University of Nebraska</td>
<td>An Interpolation Method to Produce Continuous Force of Mortality</td>
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<td>15:20 - 15:40</td>
<td>Syed Hossain</td>
<td>University of Nebraska</td>
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<td>15:40 - 16:05</td>
<td>Coffee Break</td>
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<tr>
<td>16:05 - 17:45</td>
<td>Session - Risk Modeling</td>
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<td>16:05 - 16:25</td>
<td>Luis Gutierrez, A. F. Ochoa and A. Correa</td>
<td>University of Nebraska</td>
<td>A Comparative Study of IBNR Methodologies for the Colombian Pension System</td>
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<tr>
<td>16:25 - 16:45</td>
<td>Victor Guerrero</td>
<td>ITAM</td>
<td>Estimating Trends with Percentage of Smoothness Chosen by the User</td>
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<td>16:45 - 17:05</td>
<td>Mathieu Boudreault</td>
<td>Université Laval</td>
<td>Modelling natural catastrophe risk: an application to earthquakes and hurricanes</td>
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<tr>
<td>17:05 - 17:25</td>
<td>Emiliano Valdez and Jed Frees</td>
<td>University of Wisconsin</td>
<td>Longitudinal Modeling of Singapore Automobile Insurance</td>
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<tr>
<td>17:25 - 17:45</td>
<td>Nidia Pérez and Ángeles Yáñez</td>
<td>HSBC</td>
<td>Factors Affecting Labour Risks Severity</td>
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<td>18:00 - 19:00</td>
<td>Reception (Held at ITAM and sponsored by Mercer Human Resource Consulting Mexico)</td>
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Friday, August 12

07:30 - 08:30 Continental Breakfast (sponsored by CONAC)
08:30 - 10:10 Session - Pensions

08:30 - 08:50 Alejandro Renteria and Tapen Sinha
ITAM
The Cost of Pension Guarantee

08:50 - 09:10 Kyle Hays
University of Iowa
Topics in Lump Sum Payments from Defined Benefit Pension Plans

09:10 - 09:30 Héctor Sandoval
Banco de México
Analysis of the Pension Reform in Mexico

09:30 - 09:50 Yan Liu
University of Waterloo
Long Term Deferred Annuity Products

09:50 - 10:10 Enrique Marin
Mercer
Retirement Planning

10:10 - 10:35 Coffee Break

10:35 - 12:15 Session - Risk Theory

10:35 - 10:55 David Landriault
University of Waterloo
Analysis of the discounted penalty function in a discrete-time risk model with dependence

10:55 - 11:15 Marco Ramirez Corzo and Enrique de Alba
ITAM
Claims Reserving When There Are Negative Values in the Runoff Triangle

11:15 - 11:35 Manuel Morales and José Garrido
York University

11:35 - 11:55 Li Zhi
University of Waterloo
The adjustment coefficient with QS and XL reinsurance

11:55 - 12:15 Yao Wang
Roosevelt University
Useful properties of the three-parameter Burr XII distribution

12:15 - 13:55 Lunch (Sponsored by L M & S)


13:55 - 14:15 Arnold Shapiro
Penn State University
Fuzzy Regression Models and the Term Structure of Interest Rates

14:15 - 14:35 HyunTae Kim
University of Waterloo
Bootstrap estimation of the conditional tail expectation

14:35 - 14:55 Judy Zhu
University of Illinois
Generate a Confidence Interval for VaR

14:55 - 15:15 Ken Seng Tan
University of Waterloo
CTE and Capital Allocation under the Skew Elliptical Distributions

15:15 - 15:35 Edoh Afambo
Georgia State University
Operational Risk Capital Provisions for Banks and Insurance Companies

15:35 - 15:55 Yu Zhou
University of Waterloo
Risk Management at a Leading Canadian Bank: An Actuarial Science Graduate's View

15:55 - 16:20 Coffee Break

16:20 - 17:20 Special Session on Risk Management Education
Chair: Robert L. Brown
University of Waterloo
Discussants: Manuel Mendoza
ITAM
Sam Cox
Georgia State University

19:00 - 22:00 Conference Dinner at Grupo Nacional Provincial, Insurance Co.
Saturday, August 13

07:30 - 08:30 Continental Breakfast (sponsored by CONAC)
08:30 - 09:50 Session - Pensions

08:30 - 08:50 Kevin Shand
University of Manitoba
Provisions for Adverse Deviations: The Margin Based Approach for Setting Assumptions for Pension

08:50 - 09:10 Kai Chen
University of Waterloo
The Valuation of hybrid pension plan

09:10 - 09:30 Guillermo Ruiz Palacios
Banco de México
Some Salary Scale Estimation Methods for Pension Valuations

09:30 - 09:50 David Kausch
University of Michigan
A Better Defined Benefit Contribution Policy: Contribute No Less than the Normal Cost

09:50 - 10:15 Coffee Break

10:15 - 12:15 Final Session

10:15 - 10:35 Edgard Baqueiro and Tapen Sinha
ITAM
Rainfall insurance

10:35 - 10:55 Sebastian Jaimungal and Suhas Nayak
University of Toronto
On Indifference Pricing for Double-Trigger Reinsurance Products

10:55 - 11:15 Sebastian Jaimungal and Tao Wang
University of Toronto
Catastrophe Options with stochastic interest rates

11:15 - 11:35 Tapen Sinha
ITAM
Bancassurance: who ties the knot and why

11:35 - 11:55 Jie Gao
University of Wisconsin
Four-Part Models with Correlation between Inpatient and Outpatient Health Care Expenditures

11:55 - 12:15 Charles-Patrick Dugas
University of Montreal
41st ARC, 2006 in Montreal

12:15 Lunch boxes available
13:00 Buses depart to hotels and the "Bazar del Sábado"

In the Technical Sessions there will be simultaneous translation English-Spanish-English sponsored by Asociación Mexicana de Actuarios (AMA)

Participants need to be at the lobby of their respective hotels to take the shuttle bus to the conference site.

Departure times are as follows:
CIESS - 7:00 am
Royal Pedregal - 7:15 am
Pedregal Palace - 7:15 am