TWENTY-EIGHTH ACTUARIAL RESEARCH CONFERENCE

Madison, Wisconsin   August 19-21, 1993

Conference in Honor of Professor James C. Hickman

Host Organizations:
The Education and Research Section and The University of Wisconsin School of Business

Sponsoring Bodies:
The Actuarial Education and Research Fund, American Academy of Actuaries, American Society of Pension Actuaries, The Canadian Institute of Actuaries, The Casualty Actuarial Society, Conference of Consulting Actuaries, and the Society of Actuaries.

Contributing Sponsors:
American Family Insurance Group, CUNA Mutual Insurance Group, Employers Health Insurance, National Guardian Life Insurance Company, and Wisconsin Physicians Service

Program

Author / Presenter	Affiliation of Presenter	Title of Presentation
Overview: Thursday 1:00-1:30 pm		
Frees, E. W. (Jed)	University of Wisconsin	Welcome to the Conference
Policano, Andrew	University of Wisconsin	Welcome to the University of Wisconsin
Session 1: Thursday 1:30-3:10 pm. *Pension Plans and Social Insurance* Moderator: Don Jones		
Shapiro, Arnold	Pennsylvania State University	The Small Plan Audit Program
Young, Howard	University of Michigan	Measuring the Effect of U.S. Social Security Cash Benefits (OASDI)
Sharp, Keith	University of Waterloo, Ontario	Funding Methods and Pension Plan Amendments
Brown, Robert L.	University of Waterloo, Ontario	Tax Assistance to Registered/Qualified Pension Plans: Deferral or Waiver?
Session 2: Thursday 3:40-5:20 pm. *Education Issues* Moderator: Bob Brown		
Nesbitt, Cecil	University of Michigan	*n*-Year Roll-Forward Reserve Financing of Social Security
Hearsey, Bryan	Lebanon Valley College	Undergraduate Student Research
Shephard, John A. and Bellis, Clare	Macquarie University, Australia	Improving University Actuarial Education
London, Dick	Actex Publications	A Proposal for an Alternative Reference Policy with respect to the Associateship Examinations of the Society of Actuaries

The Conference Reception will be held immediately following the final Thursday session. The reception is from 5:20-7:30 pm.

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Session 3: Friday 8:10-9:50 am. *Estimating and Smoothing Decrement Rates*

Moderator: Margie Rosenberg

Portnoy, Esther	University of Illinois - Champaign	Bivariate Schuette Graduation
van Wyk, Jacob	Rand Afrikaans University, Johannesburg, South Africa	Diagnostics and Tests for Abrupt Change with an Application to a Two-state Markov Chain
Carriere, Jacques	University of Manitoba, Winnipeg, Manitoba	A Twelve Parameter Model of Select Mortality Rates
		The Effect of Removing Cancer as a Cause of Death When it is Correlated With Other Causes
Panjer, Harry	University of Waterloo, Ontario	Survival Analysis Using Right-Truncated Data

Session 4: Friday 10:20-12:00 am. *Stochastic Interest Models*   Moderator: Gordon Willmot

Buhlmann, Hans	ETH, Zurich, Switzerland	Life Insurance with Stochastic Interest Rates
Brender, Allan	William M. Mercer LTD, Toronto	The Cash Flow Valuation Method: Provisions for Adverse Deviations and Stochastic Models
Parker, Gary	Simon Fraser University British Columbia	Stochastic Interest Rates and Insurance Portfolios: The Impact of Model and Parameter Selection

The Conference Lunch is scheduled from 12:00 - 1:30 pm. It will include presentations by Don Jones and Mark Doherty. Don will speak on the activities of the Education and Research Section and Mark will provide an overview of recent research efforts and future directions of the Society of Actuaries.

Session 5: Friday 1:30-3:10 pm. *Actuarial Applications of Finance I*   Moderator: Arnold Shapiro

Christiansen, Sarah	The Principal Financial Group Des Moines, IA	The Markov Chain Process Interest Rate Generator Revisited
Li, David X.	University of Waterloo, Ontario	Immunization Measures for Life Contingencies
Doherty, Mark and Luckner, Warren	Society of Actuaries, Illinois	Final Report: 1986-1989 Credit Risk Event Loss Experience, Commercial Mortgage Loans and Private Placement Bonds

Session 6: Friday 3:40-5:20 pm. *Actuarial Applications of Finance II* Moderator: Sarah Christiansen

Gerber, Hans and Shiu, Elias	University of Iowa	Option Pricing by Esscher Transforms
Ostaszewski, K.	University of Louisville	Do Junk Bonds Die in Vain? Some Do, Some Don't
Lin, Xiaodong (Sheldon)	University of Toronto, Ontario	Optimal Portfolio Selection with Transaction Costs
Sandilya, Manalur S.	University of Nevada - Reno	Computing Ruin Probabilities -- A Life Table Approach

The Conference Banquet will be held Friday evening from 7:00 - 9:30 pm. It will include a tribute to the accomplishments of Jim Hickman.

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Author / Presenter	Affiliation of Presenter	Title of Presentation
Session 7: Saturday 8:00-9:40 am. *Economic Theory and Pricing* Moderator: Jenny Young		
Prabaharan, Raj	University of Wisconsin-Stevens Point Wisconsin	A Necessary and Sufficient Condition on Utility Functions for Decreasing Risk
Ramsay, Colin M.	University of Nebraska-Lincoln	Some Problems with Actuarially Equivalent Pension Benefits
Promislow, S. David	York University, Ontario	Axioms for the Valuation of Payment Streams: A Topological Vector Space
Levikson, B. and Mizrahi, G.	University of Haifa, Israel	Pricing Long Term Care Insurance Contracts
Session 8: Saturday 10:10-12:00 am. *Actuarial Applications of Statistical Estimation* Moderator: Esther Portnoy		
Berg, Menachem and S. Haberman	University of Haifa, Israel	Some Bayesian Prediction Models for Claim Processes
Bailey, William	Kemper National Insurance, Illinois	Efficiency of Bootstrapping for the Least Squares Credibility Z
Dalapatadu, R. Bowman H. and Singh, A.K.	University of Nevada, Las Vegas	Estimation of Prior Density by Numerical Solution of Integral Equations
Fuhrer, Chuck	Washington National Ins. Co. Evanston, Illinois	Discrete Multivariate Loss Distributions

The Conference Lunch is scheduled from 12:00 - 1:00 pm.

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Session 9: Saturday 1:00-2:15 pm. *Empirical Studies in Actuarial Science* Moderator: Chuck Fuhrer		
Garrido, Jose	Concordia University, Montreal, Quebec	Analysis of U.S. Hurricane Data
Herzog, Tom	Department of Housing and Urban Development	To Be Announced
Craighead, Steve	Nationwide Corp., Columbus, Ohio	Chaotic Analysis of U.S. Short Term Interest Rates
Session 10: Saturday 2:35-3:50 pm. *Frontiers in Risk Theory* Moderator: Jed Frees		
Willmot, Gordon E. and Lin, Xiaodong	University of Waterloo, Ontario	Lundberg Bounds on the Tails of Compound Distributions
Jones, Bruce L.	University of Iowa	On Simulating the Total Claims Distribution
Wang, Shaun	Concordia University, Montreal, Quebec	Stable Evaluations of Mixed Poisson Probabilities

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