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July 30—August 1, 2009

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44th Actuarial Research Conference Program

Wednesday 29 July

5:30-7:30	Registration and Reception in the East Atrium

Thursday 30 July

7:30-8:30 Continental Breakfast

8:30-8:50 Welcome

8:50-10:05 *Session 1 — Statistical Methods*

Moderator: Vytaras Brazauskas

Arnold F. Shapiro — The Fuzziness in Regression Models

Rahul A. Parsa — Copula Regression

Florent Toureille — Risk models based on time series for count random variables

Session 2 — Investments I

Moderator: Jim Bridgeman

Michael Sherris — Pricing and Hedging Synthetic CDO Tranche Spread Risks

Runhuan Feng — Stochastic Annuities: an exploration of Black-Scholes model from an actuarial perspective

Ohoe Kim — Implementation of Intensity Model Approach to CMCDS Pricing

10:05-10:35 Break

10:35-11:50 *Session 3 — Health Care and Claims*

Moderator: Margie Rosenberg

Paul H. Johnson, Jr. — Exploring Stakeholder perspectives on What Is Affordable Health Care

Basil Ibrahim — Queueing Analysis of a Priority-based Claim Processing System

Louise Lavoie — Health and Longevity Insurance: Interaction between Incomplete Market and Imperfect Information

Session 4 — Investments and Credit

Moderator: Emil Valdez

James G. Bridgeman — The Effect of Global Warming On Discounting Methodology

Khouzeima Moutanabbir — International Investment Model for Asset Allocation in Life Insurance and Pension Fund Management

Sarah L.M. Christiansen — Credit Risk Simulation Study

11:50- 1:20 Lunch

1:20-3:00 *Professionalism (CPD)*

Moderator: Margie Rosenberg

Curtis Huntington and Emily Kessler

1:20-3:00 cont.	*Session 5 — Investments II*
	Moderator: Daniel Dufresne
	Dian Zhu — Safety Mean-Variance Hedging - Systematic Introducing of Convex Duality Method
	Matthew Till — Regime-Switching Portfolio Replication
	Qiu Chao — On the Application of Esscher Transform to the Regime Switching Model
	Rui Zhou — A Cautionary Note on Pricing Longevity Index Swaps
3:00-3:30	Break
3:30-4:45	*Session 6 — Teachers' Corner*
	Moderator: Kirk Peter
	John Shepherd — What the student does: Reflections on a quarter century of teaching actuarial students
	Rick Gorvett — Undergraduate Research in Actuarial Science and Financial Mathematics at the University of Illinois
	Stuart Klugman, Emily Kessler — Centers of Actuarial Excellence Program
	Session 7 — Life and Annuities
	Moderator: John Manistre
	Claymore Marshall — Static hedging strategies for Guaranteed Minimum Income Benefits (GMIBs)
	Yunjie (Winnie) Sun — Household's Life Insurance Demand – a Multivariate Two Part Model
	Ting Wang — Optimal Reversible Annuities to Minimize the Probability of Lifetime Ruin
5:30-7:00	Poster Session & Reception
7:00-9:00	Dinner Event
	Speaker — Cecil Bykerk, SoA President

Friday 31 July

7:30-8:30	Continental Breakfast
8:30-9:45	*Session 8 — Claims Modeling I*
	Moderator: Glenn Meyers
	Ricardas Zitikis — The actuarial CTE risk measure for heavy-tailed losses: A new estimator and confidence intervals
	Ya Fang Wang — The Application of Discounted PH-renewal Sums
	Vytaras Brazauskas — Robust and Efficient Fitting of Claim Severity Distributions
	Session 9 — Investments and Corporate Finance I
	Moderator: Ohoe Kim
	Daniel Dufresne — Beta-Gamma Algebra, Discounted Cash-Flows, And Barnes's Lemmas
	Mathieu Boudreault — A multi-name structural credit risk model with a reduced-form default trigger
	Ishmael Sharara — Capital Adequacy Requirements for Life Insurers under the Canadian, US and the proposed EU Solvency II regulatory frameworks
9:45-10:15	Break

10:15-11:30	*Session 10 — Claims Modeling II*
	Moderator: Ricardas Zitikis
	Emiliano A. Valdez — A hierarchical model for micro–level stochastic loss reserving
	Brian M. Hartman — Bayesian Nonparametric Regression for Counts of Insurance Claims
	Harald Dornheim — Robust Regression Credibility Models for Heavy-Tailed Claims
	Session 11 — Investments and Corporate Finance II
	Moderator: Nariankadu D. Shyamalkumar
	Daniel Dufresne — Option Pricing With Stochastic Volatility: Applying Parseval's Theorem
	Jingyu Chen — The distribution of the total dividend payments in a MAP risk model with multi-threshold dividend strategy
	Hal Pedersen — What are the Vital Features of an Economic Scenario Generator?
11:30-1:00	Lunch
1:00-2:40	*Session 12 — Property and Casualty*
	Moderator: Martin Halek
	Peng Shi — Long-tail Longitudinal Modeling of Insurance Company Expenses
	Chengguo Weng — An empirical-based approach to optimal reinsurance
	Esteban Flores — Truncated distributions for the modeling of solvency in non-life insurance
	Nariankadu D. Shyamalkumar — On Nonparametric Estimation of the CTE
	Session 13 — Mortality and Retirement
	Moderator: Paul Johnson, Jr.
	Bruce L. Jones — Modeling Joint Lifetimes
	Philip Adams — Beyond Whitaker-Henderson: Generalized Additive Models and Mortality Modeling
	Yosuke Fujisawa — IFRS Convergence: The Role of Stochastic Mortality Models in the Disclosure of Longevity Risk for Defined Benefit Plans
	Jian Wen — Pricing Mortality-linked Securities with Dependent Lives under the Multivariate Threshold Life Table
2:40-3:10	Break
3:10-4:35	*Plenary 1*
	Moderator: Jed Frees
	Glenn Meyers, Jim Guszcza and Jim Grana
	Role of Research in Industry
5:30-7:00	Poster Session & Reception
7:00-9:00	Dinner Event
	Speaker — Gary Josephson, Academy of Actuaries Vice-President for Casualty Issues

Saturday 1 August

7:30-8:30 Continental Breakfast

8:30-9:30 *Ethics*

Denis Collins — How Do You Create an Ethical Organization?

9:30-10:00 Break

10:00-11:40 *Session 14 — Claims Modeling III*

Moderator: Peng Shi

Jean-Philippe Boucher — On the Importance of Dispersion Modelling for Claims Reserving: Application of the Double GLM Theory

Taehan Bae — Securitizations of Motor Insurance Loss

Daniel Alai — Prediction Uncertainty in the Bornhuetter-Ferguson Reserving Method

Buyi Zhang — Model Frequency with Binomial Distribution for Claims Made Policies

Session 15 — Investments and Corporate Finance III

Moderator: Ping Wang

Eric R. Ulm — On the Determination of Capital Charges in a Discounted Cash Flow Model

John Manistre — Applying the Cost of Capital Method to Extrapolate an Implied Volatility Surface

11:40-12:40 Lunch

12:40-2:00 *Plenary 2*

Moderator: Jed Frees

Mary Hardy, Jay Vadiveloo and Scott Farris

Industry Support of University Actuarial Research Programs

2:00-2:15 Wrap-up

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Poster Session Talks

Optimal Risk Retention under Reciprocal Reinsurance with Exponential Utility Functions	Ying Zhong
A Decision-Tree Approach for a Comprehensive Cost Comparison of Newborn Screening Strategies	Marjorie A. Rosenberg
A Demographic Approach to Forecasting Groups Covered by Employer Health Insurance	Hallie J. Kintner
Optimal Allocation between Fixed and Variable Subaccounts in Variable Annuities	Jin Gao
Optimal reinsurance retentions under joint survivorship of both insurer and reinsurer	Kai Li
Dependent Multi-Peril Ratemaking Models	Edward W. (Jed) Frees
Crop Insurance	Jared Brown, Justin Falzone, Patrick Persons
Multivariate Longitudinal Modeling Using Copulas with its Application to Insurance Company Expenses	Peng Shi

44th Actuarial Research Conference Attendees

Philip Lance Adams ASA,MAAA	padams@marclife.com	Munich American Reassurance Co
Daniel Hakim Alai	daniel.alai@math.ethz.ch	Finanzkompetenzzentrum RiskLab
Rohana Ambagaspitiya	ambagasp@ucalgary.cn	University of Calgary
Yair M Babad	YBabad@uic.edu	University of Illinois at Chicago
Taehan Bae	taehanbae@hotmail.com	Algorithmics Inc.
Chunsheng Ban	ban.1@osu.edu	The Ohio State University
Jean-Philippe Boucher	boucher.jean-philippe@uqam.ca	Universite du Quebec a Montreal
Mathieu Boudreault FSA	mathieu.boudreault@videotron.ca	UQAM and HEC Montreal
Vytaras Brazauskas	vytaras@uwm.edu	University of Wisconsin-Milwaukee
James G Bridgeman FSA,MAAA	bridgeman@math.uconn.edu	University of Connecticut
Jared John Brown	jbrown2143@yahoo.com	University of St. Thomas
Frank J Buzzi FSA,MAAA,EA	fjbuzzi@rrb.gov	US Railroad Retirement Board
Cecil D Bykerk FSA,MAAA,FCA	oakoffice1@cox.net	CDBykerk Consulting LLC
Jingyu Chen	chenjy1008@yahoo.com.cn	Simon Fraser University
Sarah L M Christiansen FSA,MAAA	Sarah_L_Christiansen@alumni.ucr.edu	SMC Actuarial Consultants Inc
Samuel H Cox FSA	scox@cc.umanitoba.ca	University of Manitoba
A David Cummings FCAS,MAAA	david.cummings@iso.com	ISO Innovative Analytics
James W Daniel ASA	daniel@math.utexas.edu	University of Texas at Austin
Danail Davidov	d_davidov@hotmail.com	Universite du Quebec a Montreal
Enrique de Alba ASA	dealba@itam.mx	Instituto Technologico Autonomo de Mexico
Curtis Gary Dean MAAA,FCAS	cgdean@bsu.edu	Ball State University
Harald Johann Dornheim	dornheim@uwm.edu	University of Wisconsin-Milwaukee
Daniel Dufresne FSA	dufresne@unimelb.edu.au	University of Melbourne
Ian G Duncan FSA,FIA,FCIA,MAAA	iduncan@soluciaconsulting.com	Solucia Inc
Thomas P Edwalds FSA,ACAS,MAAA	tedwalds@marclife.com	Munich American Reassurance Co
Justin Joseph Falzone	jjfalzone@stthomas.edu	University of St. Thomas
Scott Farris	Scott.farris.agwy@statefarm.com	State Farm
Runhuan Feng	rhfeng@gmail.com	University of Wisconsin-Milwaukee
Esteban Ignacio Flores	est_flo@yahoo.ca	Departamento de Actuara y Seguros, Instituto Tecnologico Autonomo de Mexico
Edward W Frees FSA	jfrees@bus.wisc.edu	University of Wisconsin
Charles Fuhrer	cfuhrer@segalco.com	Segal Company
Yosuke Fujisawa	ac15211@yahoo.co.jp	University of Waterloo
Jin Gao	dylanjingao@gmail.com	Georgia State University
Ronald Gebhardtsbauer FSA,EA,MAAA,MSPA,FCA	rug16@psu.edu	Pennsylvania State University
Dmitry Vladimirovich Glotov	dglotov@auburn.edu	Auburn University
Richard W Gorvett MAAA,FCAS	gorvett@uiuc.edu	University of Illinois
Timothy L Graham MAAA,FCAS	tim.graham@cunamutual.com	CUNA Mutual Group

James Grana	kelly.morgan@assurant.com	Assurant
James C Guszcza MAAA,FCAS	jguszcza@deloitte.com	Deloitte Consulting LLP
Chen Guorong		
Martin Halek	mhalek@bus.wisc.edu	University of Wisconsin-Madison
Mary R Hardy FSA,FIA,CERA	mrhardy@uwaterloo.ca	University of Waterloo
Brian Matthew Hartman ASA	bhartman@stat.tamu.edu	Texas A&M University
Thomas N Herzog ASA	thomas.n.herzog@hud.gov	FHA
Majid Hosseini	majid.hosseini.1@gmail.com	
Curtis E Huntington FSA,MAAA,FCA	chunt@umich.edu	University of Michigan
Bruce Iverson	biverson@soa.org	Society of Actuaries
Paul Herbert Johnson Jr.	pauljohnson_jr@yahoo.com	University of Illinois
Bruce Leonard Jones FSA,FCIA	jones@stats.uwo.ca	University of Western Ontario
Vincent Michael Kane FSA,MAAA	vkane@veriskhealth.com	Verisk Health
Ohoe Kim	okim@towson.edu	Towson University
Hallie J Kintner	hallie.kintner@gmail.com	University of Michigan
Stuart Klugman FSA,CERA	sklugman@soa.org	Society of Actuaries
Blane A Laubis		
Kai Li	likai8363@gmail.com	Central University of Finance and Economics
Cen-Tsong Lin	ctl@cwu.edu	Central Washington University
Xiaodong Sheldon Lin ASA	sheldon@utstat.utoronto.ca	University of Toronto
Rama Theeru Lingham	rama@math.niu.edu	
Yan Liu		
Yi Lu	yilu@sfu.ca	Simon Fraser University
Cuncun Luan	luan@wisc.edu	University of Wisconsin-Madison
B John Manistre FSA,FCIA,MAAA,CERA	john.manistre@aegon.com	AEGON NV
Claymore Marshall	cj2marsh@uwaterloo.ca	University of Waterloo
Mark M Maxwell ASA	maxwell@math.utexas.edu	University of Texas at Austin
Mark F Mercier ACAS,MAAA	merm235@lni.wa.gov	Washington Dept of Labor & Industries
Glenn Meyers	gmeyers@iso.com	ISO Innovative Analytics
Khouzeima Moutanabbir	khouzeima.moutanabbir.1@ulaval.ca	University of Laval
Rahul Amba Parsa	rahul.parsa@drake.edu	Drake University
Hal Warren Pedersen ASA	pedersn@cc.umanitoba.ca	University of Manitoba
Jingjiang Peng		
Richard Penney	rcp@math.purdue.edu	Purdue
Kirk Alan Peter FSA	kpeter@bus.wisc.edu	University of Wisconsin-Madison
S. David Promislow FSA,FCIA	promis@mathstat.yorku.ca	York University
Chao Qiu	qiuchao@hotmail.com	University of Waterloo
Jacques Rioux ASA	Jacques.rioux@sas.com	SAS Institute Inc
Marjorie A Rosenberg FSA,MAAA	mrosenberg@bus.wisc.edu	University of Wisconsin

Ying Shang	yinger1201@gmail.com	
Arnold F Shapiro FSA,EA,MAAA	afs1@psu.edu	Pennsylvania State University
Ishmael Sharara FCIA	isharara@math.uwaterloo.ca	University of Waterloo
John Shepherd	jshepher@efs.mq.edu.au	Macquarie University
Michael Sherris FSA,FIAA,FIA	m.sherris@unsw.edu.au	University of New South Wales
Peng Shi ASA	pshi@bus.wisc.edu	University of Wisconsin-Madison
Elias S Shiu ASA	eshiu@stat.uiowa.edu	University of Iowa
Nariankadu D Shyamalkumar ASA	shyamal-kumar@uiowa.edu	University of Iowa
Kenneth L Sidikman FSA,MAAA	Ken.Sidikman@cunamutual.com	CUNA Mutual Group
Steven C Siegel ASA,MAAA	ssiegel@soa.org	Society of Actuaries
Latife Sinem	lasinem@gmail.com	Istanbul University
Ronora E Stryker ASA,MAAA	rstryker@soa.org	Society of Actuaries
Yunjie Sun ASA	ysun4@wisc.edu	University of Wisconsin
Ken Seng Tan ASA,CERA	kstan@uwaterloo.ca	University of Waterloo
Matthew Charles Till	matthew_till@hotmail.com	University of Waterloo
Florent Toureille	florent.toureille.1@ulaval.ca	University of Laval
Quoc Tran		
Eric Robert Ulm FSA,MAAA	inseuu@langate.gsu.edu	Georgia State University
Emiliano Andres P Valdez FSA	valdez@math.uconn.edu	University of Connecticut
Jay Vidiveloo, FSA, MAAA, DFA	jay.vadiveloo@watsonwyatt.com	Watson Wyatt
Ping Wang	wangp1@stjohns.edu	St John's University
Ya Fang Wang	wangyafang2004@yahoo.ca	Concordia University
Ting Wang	af0215@gmail.com	University of Michigan
Gregory S Wanner MAAA,ACAS	gwanner@amfam.com	American Family Insurance Group
Meg Weber	mweber@soa.org	Society of Actuaries
Chengguo Weng	wengcg@hotmail.com	University of Waterloo
Jian Wen	jane01wen@hotmail.com	Chinese Academy of Finance and Development and Central University of Finance and Economics
Toby A White FSA	toby.white@drake.edu	Drake University
Xipei Yang	xyang7@wisc.edu	University of Wisconsin-Madison
Heekyung Youn ASA	hkyoun@stthomas.edu	University of St Thomas
Paul Zaziski	zazman@hotmail.com	University of Wisconsin-Madison
Buyi Zhang	zhbuyi@gmail.com	St John’s University
Ying Zhong	clockying2008@yahoo.com.cn	University of Waterloo
Rui Zhou	tamatorr@hotmail.com	University of Waterloo
Dian Zhu	dzhu@math.uwaterloo.ca	University of Waterloo
Ricardas Zitikis	zitikis@stats.uwo.ca	University of Western Ontario