ARC 2017@ROBINSON

52nd Actuarial Research Conference | July 26-29

Georgia State University | Student Center East | 55 Gilmer St NE

Georgia State University | J. MACK ROBINSON COLLEGE OF BUSINESS

Program at a Glance

Wednesday, July 26

6:30 - 8:30 p.m. — Welcome Reception
Center for Civil and Human Rights
100 Ivan Allen Jr Blvd NW

Thursday, July 27 – Conference Day 1

Georgia State University
Student Center East (SCE) | 55 Gilmer St NE

8:00 - 9:00 a.m. — Breakfast & Registration Court & House Salons

9:00 - 9:30 a.m. — Opening Remarks SCE Auditorium
Richard Phillips, Dean, Robinson College of Business

9:30 - 10:30 a.m. — Plenary Session I SCE Auditorium
Christian Gollier, Toulouse School of Economics

10:30 - 11:00 a.m. — Coffee Break Court & House Salons

11:00 - 12:00.p.m. — Plenary Session II SCE Auditorium
Damir Filipovic, EPFL and Swiss Finance Institute

12:00 - 1:15 p.m. — Lunch Court & House Salons

1:15 - 2:45 p.m. — Parallel Sessions A1-E1 (3 Presentations)

2:45 - 3:15 p.m. — Coffee Break Court & House Salons

3:15 - 4:45 p.m. — Parallel Sessions A2-E2 (3 Presentations)

6:00 - 7:30 p.m. — ARC 2017 Basketball Game (with hot dogs and burgers)
GSU Sports Arena, 125 Decatur St

Friday, July 28 – Conference Day 2

8:00 - 9:00 a.m. — Breakfast & Registration Court & House Salons

9:00 - 9:15 a.m. — Welcome & Logistics SCE Auditorium

9:00 - 10:15 a.m. — Plenary Session III SCE Auditorium
James Guszcza, Deloitte

10:15 - 10:45 a.m. — Coffee Break Court & House Salons

10:45 - 12:15 p.m. — Parallel Sessions A3-E3 (3 Presentations)

12:15 - 1:45 p.m. — Lunch Court & House Salons
with Presentations and Invitation to ARC 2018
Nancy A Braithwaite, Travelers, CAS President
Craig Reynolds, Milliman, SOA Past President
Bruce L Jones, Western University

1:45 - 3:15 p.m. — Plenary Session IV SCE Auditorium
Panel Discussion on Analytics in Actuarial Science
Edward W Frees, U Wisconsin Madison
James Guszcza, Deloitte
Rodrigo C Martinez, Georgia State University

3:15 - 3:45 p.m. — Coffee Break Court & House Salons

3:45 - 5:15 p.m. — Parallel Sessions A4-E4 (3 Presentations)

6:00 - 9:30 p.m. — Conference Dinner
Georgia Aquarium, 225 Baker St NW

Saturday, 29 – Conference Day 3

8:00 - 9:00 a.m. — Breakfast Court & House Salons

9:00 - 10:30 a.m. — Parallel Sessions A5-D5 (3 Presentations)

10:30 - 11:00 a.m. — Coffee Break Court & House Salons

11:00 - 12:30 p.m. — Parallel Sessions A6-D6 (3 Presentations)

12:30 - 1:30 p.m. — Closing and Box Lunch Court & House Salons

ARC 2017@ROBINSON

Program Schedule

Wednesday, July 26

6:30 - 8:30 p.m. **Welcome Reception** at the Center for Civil and Human Rights
100 Ivan Allen Jr Blvd, Atlanta, GA 30303

Thursday, July 27 – Conference Day 1

ARC 2017 at the Georgia State University Student Center East (SCE)
55 Gilmer St NE, Atlanta GA 30303

8:00 - 9:00 a.m. **Breakfast & Registration** Court and House Salons

9:00 - 10:30 a.m. **Plenary Session I** SCE Auditorium 120
Chair: George Zanjani, Georgia State University
Opening Remarks by Richard Phillips, Dean, Robinson College of Business
Evaluation of Very Long-dated Assets, Interest Rates and Climate Change
Presenting Author: Christian Gollier, Toulouse School of Economics

10:30 - 11:00 a.m. **Coffee Break** Court and House Salons

11:00 - 12:00 p.m. **Plenary Session II** SCE Auditorium 120
Chair: Liang Peng, Georgia State University
Title: Replicating Portfolio Approach to Capital Calculation
Presenting Author: Damir Filipović, Ecole Polytechnique Fédérale de Lausanne (EPFL) and Swiss Finance Institute (with Mathieu Cambou)

12:00 - 1:15 p.m. **Lunch** Court and House Salons

PARALLEL SESSIONS A1-F1

A1 – TOPICS IN CLAIMS MODELING; Chair: Edward (Jed) Frees, U Wisconsin Madison SCE Auditorium 120
1:15 - 1:45 a.m. A Comparison: Some Approximations for the Aggregate Claims Distribution by Ranee Thiagarajah, Illinois State University
1:45 - 2:15 p.m. Generalized Linear Mixed Models (GLMMs) for Dependent Compound Risk Models by Emiliano Valdez, University of Connecticut (with H. Jeong, J. Ahn, and S. Park)
2:15 - 2:45 p.m. Conditional, Non-Homogeneous and Doubly Stochastic Compound Poisson Processes with Stochastic Discounted Claims by Emmanuel Hamel, Université Laval (with Ghislain Léveillé)

B1 – EDUCATION UPDATES Senate Salon 110C
1:15 - 2:45 p.m. Education Updates by Steven Armstrong, Allstate (CAS) and Christophe Groendyke, Robert Morris University (SOA)

C1 – TOPICS IN LOSS RESERVING; Chair: Liang Peng, Georgia State University Lucerne 218
1:15 - 1:45 a.m. Inflation in Loss Reserving by James Ely, Independent Consultant
1:45 - 2:15 p.m. Individual Loss Reserving with Multivariate Tweedie Models by Mathieu Pigeon, Université du Québec à Montréal (with Juan Sebastian Yanez)
2:15 - 2:45 p.m. Generalized Linear Models in Loss Reserving by Zhihan Zhang, Arizona State University

D1 – FINANCIAL MODELING; Chair: Nan Zhu, Penn State University Lanier 216
1:15 - 1:45 a.m. Extracting Latent States from High-Frequency Option Prices by Jean-François Bégin, Simon Fraser University (with Diego Amaya and Geneviève Gauthier)
1:45 - 2:15 p.m. Bayesian multivariate regime-switching models: an application in correlated assets by Brian Hartman, Brigham Young University (with Chris Groendyke and David Engler)
2:15 - 2:45 p.m. A new approach to model financial data: The Factorial Hidden Markov Volatility Model by Maciej Augustyniak, University of Montreal (with Luc Bauwens and Arnaud Dufays)

E1 – TOPICS IN INSURANCE CONTRACTING; Chair: George Zanjani, Georgia State University Capital 203

1:15 - 1:45 a.m. Pareto-Optimal Reinsurance Policies in the Presence of Individual Risk Constraints by Zhaofeng Tang, University of Iowa

1:45 - 2:15 p.m. On Optimal Reinsurance Treaties in Non-symmetric Cooperative Game by Wenjun Jiang, University of Western Ontario (with Chen Yang and Jiandong Ren)

2:15 - 2:45 p.m. Comparison of Insurance Contracts with Background Risks in High-order Risk Attitudes by Wei Wei, U Wisconsin Milwaukee (with Yichun Chi)

2:45 - 3:15 p.m. **Coffee Break** Court and House Salons

PARALLEL SESSIONS A2-E2

A2 – TOPICS IN CLIMATE RISK; Chair: Nathaniel Newlands, Government of Canada SCE Auditorium 120

3:15 - 3:45 p.m. Modeling Impact of Natural Disasters on Income Distribution in the United States by Lin Fang, Miami University (with Jiayu Wu and Tatjana Miljkovic)

3:45 - 4:15 p.m. A virtual climate library of surface temperature over North America for 1979–2015 by Vytaras Brazauskas, U Wisconsin Milwaukee (with Sergey Kravtsov and Paul Roebber)

4:15 - 4:45 p.m. Climate, Weather, and Environmental Sources for Actuaries by Robert Erhardt, Wake Forest University

B2 – TOPICS IN ACTUARIAL EDUCATION; Chair: Kristen Moore, University of Michigan Senate Salon 110C

3:15 - 3:45 p.m. Open Actuarial Textbooks by Edward (Jed) Frees, U Wisconsin Madison

3:45 - 4:15 p.m. Designing Exams to Test Higher Levels of Learning by Diana Skrzydlo, University of Waterloo

C2 – RUIN AND DEPENDENCE MODELING; Chair: Emiliano Valdez, University of Connecticut Lucerne 218

3:15 - 3:45 p.m. Full-range tail dependence copulas by Lei Hua, Northern Illinois University

3:45 - 4:15 p.m. A Bivariate Extension of the Beta-Generated Distribution Derived from Copulas by Ranadeera Samanthi, Central Michigan University (with Jungsywan Sepanski)

4:15 - 4:45 p.m. Double barrier problem for double exponential jump diffusion by Dean Teneng and Julius Esunge, University of Mary Washington (with Kalev Pärna)

D2 – TOPICS IN VARIABLE ANNUITIES; Chair: Maciej Augustyniak, University of Montreal Lanier 216

3:15 - 3:45 p.m. A Neural Network Monte Carlo Evaluation of Withdrawal Benefits in Variable Annuities by Hongjun Ha, Saint Joseph's University (with Daniel Bauer)

3:45 - 4:15 p.m. Pricing Bounds and Bang-bang Analysis of the Polaris Variable Annuities by Zhiyi Shen, University of Waterloo (with Chengguo Weng)

4:15 - 4:45 p.m. Where Less Is More: Reducing Variable Annuity Fees to Benefit Policyholder and Insurer by Thorsten Moenig, Temple University (with Carole Bernard)

E2 – TOPICS IN HEALTH INSURANCE; Chair: Ian Duncan, UC Santa Barbara Capital Salon 203

3:15 - 3:45 p.m. Combining both Financial and Clinic Data into Decision Making under Health Care Reform by Yan Yang, Blue Cross and Blue Shield of Michigan

3:45 - 4:15 p.m. A Predictive Modeling Approach to Fraud Management in Medicare Claims by Robert Lieberthal, University of Tennessee (with Jing Ai and Patrick L. Brockett)

4:15 - 4:45 p.m. Examining Predictive Modeling Based Approaches to Characterizing Healthcare Fraud (interim results) by Skyla Smith, University of Tennessee (with Jing Ai and Robert Lieberthal)

6:00 - 7:30 p.m. **ARC 2017 Basketball game (with hot dogs and burgers)**
GSU Sports Arena, 125 Decatur St

Program Schedule

Friday, July 28

8:00 - 9:00 a.m. **Breakfast** Court and House Salons

9:00 - 10:15 a.m. **Plenary Session III** SCE Auditorium 120
Chair: Eric Ulm, Victoria University of Wellington
Title: Actuarial Science in the Age of AI
Presenting Author: James Guszcza, Deloitte

10:15 - 10:45 a.m. **Coffee Break** Court and House Salons

PARALLEL SESSIONS A3-E3

A3 – TOPICS ON SURVIVAL DATA; Chair: Ian Duncan, UC Santa Barbara SCE Auditorium 120

10:45 - 11:15 a.m. CSAC_EIA Workers Compensation Survival Analysis by Shannon Nicponski, UC Santa Barbara (with Liz Riedell and Jerrick Zhang)

11:15 - 11:45 a.m. Identification of Persistent High-Utilizers and the Role of Multiple Unhealthy Behaviors by Margie Rosenberg, U Wisconsin Madison (with Kyeonghee Kim)

11:45 - 12:15 p.m. Evaluating Life Expectancy Evaluations by Nan Zhu, Penn State University (with Daniel Bauer, Michael V. Fasano, and Jochen Russ)

B3 – NOVEL ACTUARIAL APPLICATIONS; Chair: Vytaras Brazauskas, University of Wisconsin-Milwaukee
Sinclair 217

10:45 - 11:15 a.m. Firearm Risk: An Insurance Perspective by Kristen Moore, University of Michigan

11:15 - 11:45 a.m. Predicting Ticket Sales for Air Shows by Stephen Henderson, Middle Tennessee State University (with Ye Fang)

11:45 - 12:15 p.m. What about Park Factors? – Park Factors and their Impact on Minor League Baseball by Kim Page, Middle Tennessee State University & SIGMA Actuarial Consulting (with Al Rhodes)

C3 – TOPICS IN RISK MEASUREMENT; Chair: Shaun S. Wang, Nanyang Technological University
Lucerne 218

10:45 - 11:15 a.m. Mixture Modeling of Left-truncated Insurance Losses with the Application in Risk Management by Tatjana Miljkovic, Miami University (with Martin Blostein and Petar Jevtic)

11:15 - 11:45 a.m. Inference and Sensitivity Analysis of Haezendonck-Goovaerts Risk Measure for a Portfolio by Xing Wang, Georgia State University (with Qing Liu, Yanxi Hou, and Liang Peng)

11:45 - 12:15 p.m. On Tail Dependence Matrices by Nariankadu D. Shyamalkumar, University of Iowa

D3 – HEDGING VARIABLE ANNUITIES; Chair: Thorsten Moenig, Temple University Lanier 216

10:45 - 11:15 a.m. Weighted Fund Style Analysis of Variable Annuity by Guangwei Fan, Maryville University (with Ethan Edens, Thomas Green, Kris Nilsson, and Yuanjin Liu)

11:15 - 11:45 a.m. A Local Approach Based on Risk Measures for the Hedging of Variable Annuities by Frédéric Godin, Concordia University

11:45 - 12:15 p.m. A Tale of Two Risk Management Strategies: Risk Measure Based Reserving and Net Liability Hedging of Variable Annuity Guaranteed Benefits by Bingji Yi, University of Illinois at Urbana-Champaign (with Runhuan Feng)

E3 – TOPICS IN AGRICULTURAL INSURANCE; Chair: Colin Ramsay, University of Nebraska-Lincoln
Capital 203

10:45 - 11:15 a.m. Agricultural Insurance, Farmer Security, and Food Security by Akshi Jain, University of Nebraska-Lincoln (with Colin M. Ramsay, Victor Oguledo, Donna Morrison, John K. Osiri, and Janvier Degbedji)

11:15 - 11:45 a.m. Weather Index-based Crop Insurance: Exploring the Benefits of Bayesian and Deep Learning Models in Crop Yield Prediction by Nathaniel Newlands, Agriculture and Agri-Food Canada, Science and Technology Branch (with Yulia R. Gel, Vyacheslav Lyubchich, and Weixun Lu)

12:15 - 1:45 p.m. **Lunch** Court and House Salons
Presentations by Nancy A. Braithwaite, Travelers, CAS President, and Craig Reynolds, Milliman, SOA Past President
Invitation to ARC 2018 by Bruce L. Jones, Western University
Invitation to ICA 2018 (Video)

1:45 - 3:15 p.m. **Plenary Session IV** SCE Auditorium 120
Chair: Daniel Bauer, Georgia State University
Title: Panel Discussion on Analytics in Actuarial Science
Panelists: Edward W Frees, U Wisconsin Madison; James Guszcza, Deloitte; and Rodrigo C. Martinez, Georgia State University

---

3:15 - 3:45 p.m. **Coffee Break** Court and House Salons

PARALLEL SESSIONS A4-E4

A4 – ASSET ALLOCATION; Chair: Frédéric Godin, Concordia University SCE Auditorium 120

3:45 - 4:15 p.m. Short Positions and Negative Correlations by Phelim Boyle, Wilfrid Laurier University (with Thierno Bocar N'Diaye)
4:15 - 4:45 p.m. Investment and Reinsurance Options with Dynamic Financial Analysis by Betül Zehra Karagül, Hacettepe University (with Samet Gençgönül)
4:45 - 5:15 p.m. Evaluating Multivariate GARCH Model for Optimal Asset Allocation Purposes by Nor Syahilla Abdul Aziz, University of Essex (with Spyridon Vrontos and Haslifah Hashim)

B4 – CAS: CASE STUDIES AND COMPETITIONS; Chair: Rick Gorvett Sinclair 217

3:45 - 5:15 p.m. Case Studies and Case Competitions: Tools to Provide Real World Property/Casualty Examples In Your Classes by Alisa Havens Walch, University of Texas at Austin; and Jelena Milovanovic, Arizona State University

C4 – CYBER RISK AND NEW INSURANCE FORMATS; Chair: Hongjun Ha, St. Joseph's University Lucerne 218

3:45 - 4:15 p.m. Actuarial Implications of Peer-To-Peer (P2P) Insurance by Tatiana Margulies, Universidad de Buenos Aires (with Colin Ramsay and Victor I. Oguledo)
4:15 - 4:45 p.m. Optimal Level of Information Security Investment: Model and Formula by Shaun S. Wang, Nanyang Technological University

D4 – NUMERICAL ISSUES IN ACTUARIAL AND FINANCIAL MODELING; Chair: Jean-François Bégin, Simon Fraser University Lanier 216

3:45 - 4:15 p.m. Actuarial Approaches to Modeling F/X and Commodity Risk by James P. McNichols, Clemson University Risk Engineering and System Analytics Center
4:15 - 4:45 p.m. Numerical Approximations of Optimal Portfolios in Mispriced Asymmetric Levy Markets by Winston Buckley, Bentley University (with Hongwei Long and Mario Marshall)
4:45 - 5:15 p.m. Maximum likelihood estimation for phase-type aging models by Boquan Cheng, University of Western Ontario (with Bruce Jones, Xiaoming Liu, and Jiandong Ren)

E4 – NEW INSIGHTS TO RETIREMENT PLANING; Chair: Barbara Sanders, Simon Fraser University
Capital Salon 203

3:45 - 4:15 p.m. Gilded Pastures by Julie Tang, Arizona State University (with Jelena Milovanovic and Matthew I. Hassett)
4:15 - 4:45 p.m. The Annuity Puzzle and an Outline of Its Solution by Colin Ramsay, University of Nebraska-Lincoln (with Victor I. Oguledo)

6:00 - 9:30 p.m. **Conference Dinner at the Georgia Aquarium (aquarium admission and seated dinner)**
225 Baker St. NW; Atlanta, GA 30313

Program Schedule

Saturday, July 29

8:00 - 9:00 a.m. **Breakfast** Court and House Salons

PARALLEL SESSIONS A5-D5

A5 – DIFFICULTIES IN INSURANCE ESTIMATION; Chair: Edward (Jed) Frees, U Wisconsin Madison
Sinclair 217

9:00 - 9:30 a.m. T-Estimation for Insurance Loss Data by Chudamani Poudyal, U Wisconsin Milwaukee (with Vytaras Brazauskas)

9:30 - 10:00 a.m. Model Uncertainty and Selection in Operational Risk Modeling by Daoping Yu, University of Central Missouri (with Vytaras Brazauskas)

10:00 - 10:30 p.m. Implementing Probabilistic Fuzzy Systems by Arnold F. Shapiro, Penn State University

B5 – NEW APPROACHES IN INSURANCE MODELING; Chair: Brian Hartman, Brigham Young University
Lucerne 218

9:00 - 9:30 a.m. Spatial Statistical Tools to Assess the Old-Age Mortality Risk in the US by Tatjana Miljkovic, Miami University (with Patricia Carracedo and Ana Debón)

9:30 - 10:00 a.m. Regression Tree Credibility Model by Chengguo Weng, University of Waterloo (with Liqun Diao)

10:00 - 10:30 p.m. General Insurance Claims Modelling with Factor Collapsing and Bayesian Model Averaging by Sen Hu, University College Dublin (with Adrian O'Hagan and Brendan Murphy)

C5 – VALUATION OF UNIT-LINKED INSURANCE; Chair: Phelim Boyle, Wilfrid Laurier University
Lanier 216

9:00 - 9:30 a.m. A Two-decrement Model for the Valuation and Risk Measurement of a Guaranteed Annuity Option by Yixing Zhao, University of Western Ontario (with Rogenar S. Mamon and Huan Gao)

9:30 - 10:00 a.m. Analytical Valuation and Hedging of Variable Annuity Guaranteed Lifetime Withdrawal Benefits by Xiaochen Jing, Georgia State University (with Runhuan Feng)

10:00 - 10:30 p.m. Experience Studies: The Linear Force Distribution by John McGarry, Insight Decision Solutions

D5 – TOPICS IN PENSIONS; Chair: Margie Rosenberg, U Wisconsin Madison Capital 203

9:00 - 9:30 a.m. Optimal Investment Strategies and Intergenerational Risk Sharing for Target Benefit Pension Plans by Barbara Sanders, Simon Fraser University (with Suxin Wang and Yi Lu)

9:30 - 10:00 a.m. Quantifying Inter-Generational Equity Under Different Target Benefit Plan Designs by Lu Yi, Simon Fraser University

10:00 - 10:30 p.m. Efficient Retirement Portfolios: Using Life Insurance to Meet Income and Bequest Goals in Retirement by Qinglai Zeng, University of Michigan (with Fangyuan Dong, Kristen Moore, and Nick Halen)

10:30 - 11:00 a.m. **Coffee Break** Court and House Salons

PARALLEL SESSIONS A6-E6

A6 – CAS: BEST UNIVERSITY PRACTICES; Chair: Rick Gorvett, CAS Sinclair 217

11:00 - 12:30 p.m. Best Practices in Exposing Actuarial Students to Property and Casualty Insurance, Featuring the CAS University Award Winners by Representatives of the 2017 award-winning schools

B6 – CAT AND SYSTEMIC RISK; Chair: Chengguo Weng, University of Waterloo Lucerne 218

11:00 - 11:30 a.m. An Exploration of Systemic Risk in Random Financial Networks by Dalton Turner, UC Santa Barbara

11:30 - 12:00 p.m. CAT Bond Spreads Via HARA Utility and Nonparametric Tests by Van Son Lai, Laval University (with Denis-Alexandre Trottier and Anne- Sophie Charest)

12:00 - 12:30 p.m. Valuation of Home Equity Conversion Mortgages with Default Risk Models by Junsen Tang, University of Waterloo

C6 – OBJECTIVES IN INSURANCE; Chair: Arnold F. Shapiro, Penn State University Lanier 216

11:00 - 11:30 a.m. The Marginal Cost of Risk and Capital Allocation in a Property and Casualty Insurance Company by Qiheng Guo, Georgia State University (with Daniel Bauer and George Zanjani)

11:30 - 12:00 p.m. Stochastic Profit Testing of Life Insurance Companies by Li Shen, Emlyon Business School (with Olivier Le Courtois)

12:00 - 12:30 p.m. A Goal Programming Model for Non-Life Insurance Sector's Technical Analysis by Betül Zehra Karagül, Hacettepe University

D6 – TOPICS IN MORTALITY RISK; Chair: John McGarry, Insight Decision Solutions Capital 203

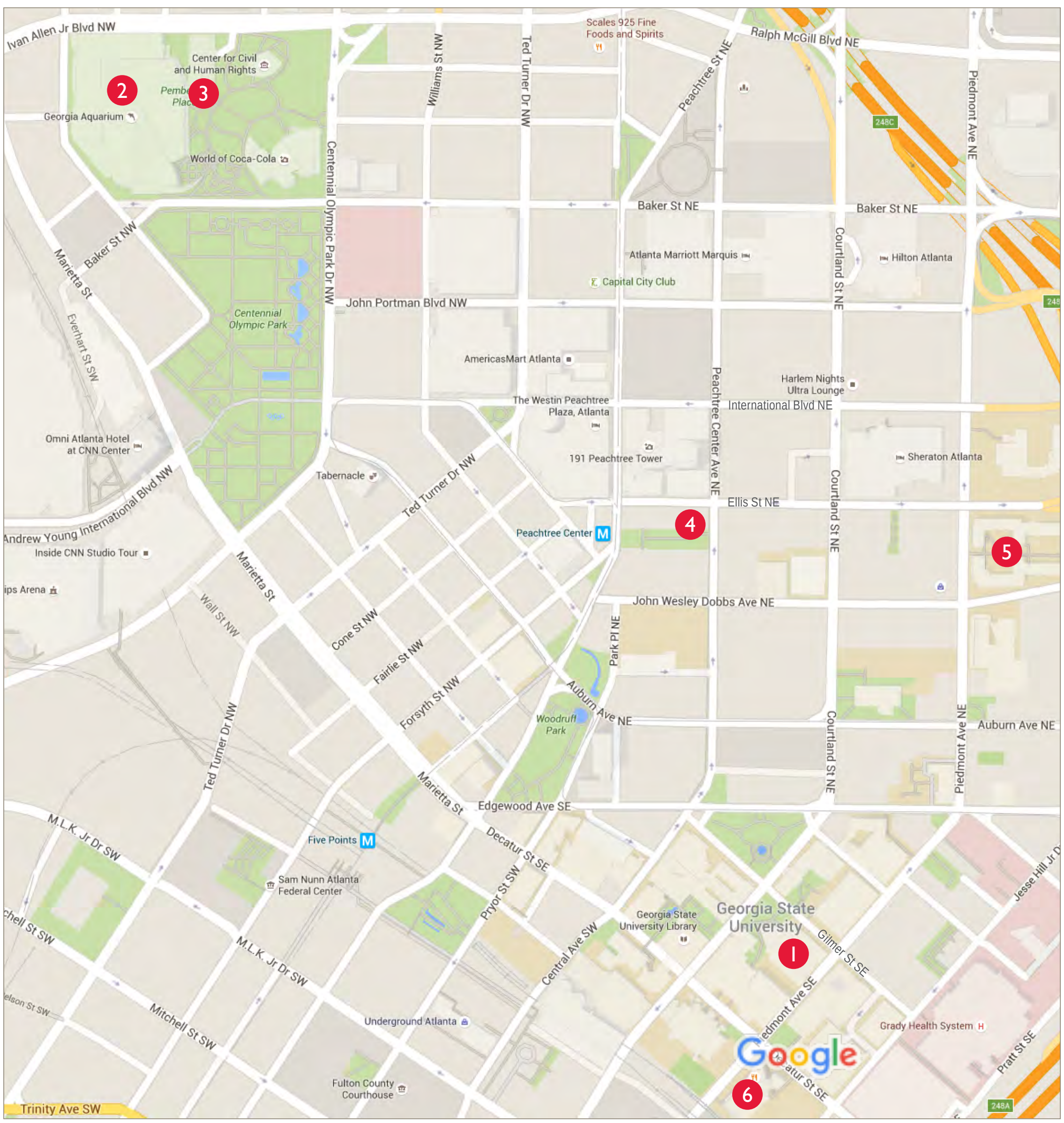
11:00 - 11:30 a.m. Bivariate Stochastic Lifetime Modeling of Married Couples and Joint-life Longevity Risk by Min Ji, Towson University (with Rui Zhou)

11:30 - 12:00 p.m. Optimal Dynamic Longevity Hedge with Basis Risk by Jingong Zhang, University of Waterloo (with Ken Seng Tan and Chengguo Weng)

12:00 - 12:30 p.m. Mortality Forecasting using Temporal Regularized Matrix Factorization Method by Fei Huang, Australian National University

---

12:30 - 1:30 p.m. **Closing and Box Lunch** Court and House Salons



1 Georgia State University Student Center East (SCE)
55 Gilmer St NE
Atlanta GA 30303

2 Georgia Aquarium
225 Baker St. NW
Atlanta, GA 30313

The event dinner on July 28 is in Oceans Ballroom (Arctic Room), located on the first level of the Georgia Aquarium parking deck. **If using UBER or LYFT**, please note that The Ballroom entrance is separate from the Aquarium's main entrance and is located on Ivan Allen Blvd., accessible through the Ivan Allen Blvd. parking deck entrance. If parking at the Aquarium, take the elevator to level one and follow the signs to the Oceans Ballroom.

3 Center for Civil and Human Rights
100 Ivan Allen Jr Blvd
Atlanta, GA 30303

4 The Ellis Hotel
176 Peachtree St NE
Atlanta, GA 30303

5 Georgia State University Commons
141 Piedmonth Ave NE
Atlanta, GA 30303

6 Georgia State University Sports Arena
125 Decatur St SE
Atlanta, GA 30303

ARC 2017@ROBINSON

Scientific Committee:

Samuel Cox, Chair, Georgia State University
Andrew Cairns, Heriot Watt University
Ian Duncan, University of California at Santa Barbara
Edward (Jed) W Frees, U Wisconsin Madison
Jose Garrido, Concordia University
Etienne Marceau, Laval University
Liang Peng, Georgia State University
Michael Sherris, Université Laval
Qihe Tang, University of Iowa
Emiliano Valdez, University of Connecticut
Shaun Wang, Nanyang Technological University

Local Organizing Committee:

Daniel Bauer, dbauer@gsu.edu, Chair
David Buechner, dbuechner@gsu.edu
Carmen Brown, cbrown4@gsu.edu
Samuel Cox, samcox@gsu.edu
Liang Peng, lpeng@gsu.edu
Eric Ulm, Eric.Ulm@vuw.ac.nz
George Zanjani, gzanjani@gsu.edu

Georgia State University | J. Mack Robinson College of Business

rmi.robinson.gsu.edu

SOCIETY OF ACTUARIES®

Thank you to our sponsors

PRESENTING SPONSOR:

GEORGIA STATE UNIVERSITY RISK MANAGEMENT FOUNDATION

GOLD SPONSORS:

SCOR
The Art & Science of Risk

CAS
Expertise. Insight. Solutions.®

Willis Towers Watson

SILVER SPONSORS:

aetna®

Principal

BRONZE SPONSORS:

Lincoln Financial Group®

ACTEX Learning
Learn Today. Lead Tomorrow.