

Drake Risk and Insurance Workshop on Catastrophe Risk  
Drake University, USA  
February 19, 2021  
<https://catastropheinsuranceworkshop.wp.drake.edu/>

Program

*All times listed are CST*

**1. Opening & Invited Session on "*Modeling Insurance Risk*"**

8:30–8:50

Welcome Speech: **Alejandro Hernandez** (Dean, College of Business & Public Administration, Drake University)

Chair: **Toby White** (Chair, Department of Actuarial Science, Drake University)

8:50–10:20

Chair: **Lisa Gardner** (Eastern Kentucky University)

8:50–9:20 **Edward (Jed) Frees** (University of Wisconsin-Madison and Australian National University)  
"The Discriminating (Pricing) Actuary"

9:20–9:50 **Vytaras Brazauskas** (University of Wisconsin-Milwaukee)  
"Modeling Severity and Measuring Tail Risk of Norwegian Fire Claims"

9:50–10:20 **Steve Kolk** (Kolkulations LLC)  
"The Actuaries Climate Index (ACI) and Trends in US Catastrophes"

10:20–10:30 Coffee Break

**2. Invited Session on "*Flood Risk*"**

10:30–12:00

Chair: **Fan Yang** (University of Waterloo)

10:30–11:00 **Gabriele Villarini** (University of Iowa)  
"The Frequency of Flood Events Across the Central United States and Climate Change"

11:00–11:30 **Runhuan Feng** (University of Illinois at Urbana-Champaign)  
"Peer-to-Peer Risk Sharing with an Application to Flood Risk Pooling"

11:30–12:00 **Mathieu Boudreault** (Universite du Quebec a Montreal)  
"A Global Flood Risk Modeling Framework Built with Climate Models and Machine Learning"

**3. Roundtable Session on "*COVID-19 Is Changing the Insurance Industry*"**

12:05–13:00

Panelists: **Brad Buchanan, Mandy Jia, Meyer T. Lehman, Brent Mardis, Tom Mulrooney**

Chair: **Kevin Croft** (Director, the Kelley Insurance Center, Drake University)

13:00–13:10 Coffee Break

#### **4A. Contributed Parallel Session on "Valuation and Managing Insurance Risk"**

13:10–15:10

Chair: **Jianxi Su** (Purdue University)

- 13:10–13:40 **Tim J. Boonen** (University of Amsterdam)  
"Pareto-optimal Reinsurance with Default Risk and Solvency Regulation"
- 13:40–14:10 **Saeid Safarveisi** (KU Leuven)  
"Actuarial and Financial Valuation of CAT Bonds"
- 14:10–14:40 **Fabio Gomez** (Universidad del Rosario)  
"The Gradient Allocation Principle based on the Higher Moment Risk Measure"
- 14:40–15:10 **Haibo Liu** (UNSW Sydney)  
"Indifference Pricing of Insurance-Linked Securities"

#### **4B. Contributed Parallel Session on "Catastrophe Risk in a Changing World"**

13:10–15:10

Chair: **Tianxiang Shi** (Temple University)

- 13:10–13:40 **Hirbod Assa** (Kent Business School)  
"COVID-19, the Mother of All Catastrophes: How to Manage Its Economic Risk?"
- 13:40–14:10 **Benjamin L. Collier** (Temple University)  
"How Do Households Respond to Public Program Reforms? Evidence from the U.S. National Flood Insurance Program"
- 14:10–14:40 **Rob Erhardt** (Wake Forest University)  
"The Changing Spatial Dependence in Flood Risk: A Loss Occurrence Study in the United States"
- 14:40–15:10 **Rebecca R. Williams** (North Carolina Rate Bureau)  
"Creating a Private Flood Insurance Market: A Close-up Review of the North Carolina Rate Bureau Plan Developed Amid Market Challenges"

15:10–15:20 Coffee Break

#### **5. Invited Session on "Emerging Risks" & Closing**

15:20–17:20

Chair: **Yi Lu** (Simon Fraser University)

- 15:20–15:50 **Tatyana Bolton** (R Street)  
"Can the Cyber Insurance Market Improve Cybersecurity?"
- 15:50–16:20 **Scott Stransky** (AIR Worldwide)  
"Capturing the Complexity of Cyber Risk"
- 16:20–16:50 **Maochao Xu** (Illinois State University)  
"Data Breach CAT Bonds: Modeling and Pricing"
- 16:50–17:20 **Qihe Tang** (UNSW Sydney)  
"Catastrophe Risk Management"

17:20–17:30

Closing Remarks: **Susan Watson** (Director, School of Actuarial Science & Risk Management, Drake University)

#### **Organizing Committee**

Doug Bujakowski  
**Yiqing Chen, Chair** (Email: [yiqing.chen@drake.edu](mailto:yiqing.chen@drake.edu))  
Kevin Croft  
Paul Judd

Kwangmin Jung  
Alanah Mitchell  
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