JUN ZHUANG

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Director of Graduate Studies
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I Professional Interests

Dr. Zhuang's long-term research goal is to integrate operations research, big data analytics, game theory, and decision analysis to improve mitigation, preparedness, response, and recovery for natural and man-made disasters. Other areas of interest include applications to health care, sports, transportation, supply chain management, sustainability, and architecture.

II Summary of Achievement

- Fellow Award, Society for Risk Analysis (SRA), 2022
- Peer-reviewed (refereed) publications: journal articles=140; conference papers=21; book chapters=10
- Edited books and journal special issues: 6
- Invited research seminars/webinars: 93 (from U.S. and international institutes)
- Google scholar citation indices: citation=5,505; H-index=41
- Research grant support (from NSF, DHS, DOE, AFOSR): $3 million (Zhuang credit); all PIs at UB
- Graduated Ph.D. students: 14 (8 of them are currently faculty members)
- Graduated M.S. students with thesis: 29
- Supervised high-school and undergraduate students with research projects: 94
- Supervised visiting students/scholars/professors: 26
- Awards: 2020-2021 SUNY Chancellors Awards for Excellence in Scholarship and Creative Activities; 2019-2020 UB Teaching Innovation Award; 2019-20 UB Excellence in Graduate Student Mentoring Award; 2019 SEAS Best Senior Teacher of the Year Award; 2019 Chauncey Starr Distinguished Young Risk Analyst Award, Society for Risk Analysis; 2019 UB's Exceptional Scholar Award - Sustained Achievement; 2019 40 Under 40 Award, Buffalo Business First; 2019 UB Student Engagement's Exemplary Faculty/Staff Mentor Award; 2018 SEAS Senior Researcher of the Year Award; 2018 Volunteer Service Award from the Institute for Operations Research and Management Science (INFORMS); 2017 Koopman Prize from INFORMS Military Applications Society; (h) 2017 Best Reviewer Award for *Risk Analysis*; (i) 2014 *Military Operations Research* Journal Award; 2013 UB's Exceptional Scholar Award - Young Investigator Award; 2012 UB President Emeritus and Mrs. Martin Meyerson Award for Distinguished Teaching and Mentoring; and 2012 Outstanding Reviewer Award for *Journal of Infrastructure Systems*

- Professional Services: Study committee member for the National Academies of Sciences, Engineering, and Medicine, 2019-2021; Co-Chair (2 times) for the International Conference on Risk Analysis, Decision Analysis and Security; Co-Chair (2 times) for the International Conference on Validating Models of Adversary Behavior; ISERC/INFORMS/SRA/GameSec conference track chair/program committee (20 times); NSF panelists (13 times) and reviewer (10 times); Proposal reviewer for international funding agencies including Swiss National Science Foundation, Dutch National Science Foundation, Foundation for Polish Science, National Science Centre (Poland), European Research Council, Japan Science and Technology Agency, The U.S.-Israel Binational Science Foundation, and Ministry of Science and Technology of Israel; Reviewer for 100+ academic journals for 500+ times; Associate Editor for *Decision Analysis*, *IISE Transactions*, *Naval Research Logistics*; Co-Editor for *Decision Analysis Today* (2011-2016); Editorial board members for 4 journals; Elected Decision Analysis Society council (2013-2016); and Chair-elect/Chair/past-chair for SRA's Security and Defense Specialty Group (2014-2017). Elected board member of Houghton University Board of Trustees (2021-present); Elected board member of the District Board of Administration (DBA) of the Western New York (WNY) District of the Wesleyan Church (2014-present; four terms)
- UB Services: SEAS Senator for the UB Faculty Senate (2019-2021); SEAS Promotion Committee (member, 9/2019-8/2020); SEAS Tenure Committee (member, 1/2018-5/2019; alternate member, 8/2014-5/2015; 8/2017-1/2018); SEAS Faculty Awards Committee (member, 2013-2014; 8/2018-8/2020); SEAS Undergraduate Academic Program Committee (8/2015-1/2018); ISE Director of Graduate Studies (1/2021-present); Acting ISE Department Chair (3/29/2021-4/12/2021); ISE 75th anniversary planning committee (Chair, 1/2020-12/2020); ISE Faculty Search Committee (chair, 2019-2020); ISE Faculty Brown Bag Seminar Coordinator (8/2018-8/2020); ISE Faculty Awards Committee (Chair, 8/2018-8/2020); ISE Strategic Planning Committee on Infrastructure Development (Chair, 8/2018-5/2019); ISE Strategic Planning Committee on Department Reputation and Pride (Chair, 8/2018-5/2019); ISE Director of Undergraduate Studies (8/2015-1/2018); ISE Teaching Labs Committee (chair, 8/2015-1/2018); ISE ABET/UG Affairs Committee (chair, 8/2015-1/2018); ISE Graduate Admissions and Affairs Committee (2008-2013); ISE Faculty Search Committee (chair, 2015-2016); ISE Instructor Search Committee (chair, 2016-2017); ISE Academic Coordinator Search committee (2017); ISE Safety Coordinator (2011-2012); ISE Poster Competition Coordinator (2010, 2011); ISE Seminar Coordinator (2009-2010); INFORMS UB Student Chapter Faculty Advisor (2011-2015); UB Center for Geohazads Studies student research award committee (chair, 2017); and Advisory committee for the UB's Center for Geohazads Studies (2013-present).

III Education

2008 **Doctor of Philosophy in Industrial Engineering, Minor in Mathematics**
University of Wisconsin-Madison, Madison, WI
Dissertation: *Modeling Secrecy and Deception in Homeland Security Resource Allocation*
Advisor: Professor Vicki M. Bier

2006 **Master of Science in Industrial Engineering**, non-thesis option
University of Wisconsin-Madison, Madison, WI

2004 **Master of Science in Agricultural Economics**
University of Kentucky, Lexington, KY
Thesis: *Economic Analysis of Cellulase Production by Clostridium thermocellum in Solid State and Submerged Fermentation*
Advisor: Professor Mary A. Marchant

2002 **Bachelor of Engineering in Industrial Engineering**
Southeast University, Nanjing, China

IV Academic Employment

2008-present **Assistant** (2008.8-2014.8), **Associate** (2014.8-2019.1), **Full Professor** (2019.1-present), and **Morton C. Frank Endowed Chair Professor** (2021.7-present), Department of Industrial and Systems Engineering, University at Buffalo

2011 **Fellow**, the U.S. Air Force Summer Faculty Fellowship Program (AF SFFP) through Decision Support Systems Branch, Air Force Research Lab

2004-2008 **Research Assistant**, **Instructor**, **Teaching Assistant**, and **Project Assistant**, Department of Industrial and Systems Engineering, University of Wisconsin-Madison

2007 **Intern**, Engineering & Process Science: Optimization Group, The Dow Chemical Company

2002-2004 **Research Assistant**, Department of Agricultural Economics, University of Kentucky

V Honors, Awards, and Publicity

V. A Research

- 2020-2021 SUNY Chancellors Awards for Excellence in Scholarship and Creative Activities
- 2021 External Senior Research Fellow, The National Center for Risk and Economic Analysis of Terrorism Events (CREATE)
- 2021-2023 Buffalo Blue Sky Bronze Coin Holder, University at Buffalo
- 2019 Chauncey Starr Distinguished Young Risk Analyst Award, Society for Risk Analysis
- 2019 Exemplary Faculty/Staff Mentor Award, University at Buffalo

- 2018 SEAS Senior Researcher of the Year Award, University at Buffalo
- 2018-2020 Buffalo Blue Sky Gold Coin Holder, University at Buffalo
- 2017 Koopman Prize from the INFORMS Military Applications Society for the outstanding publication in military operations research in 2016.
- 2014 MOR Journal Award for the best paper published in 2013 in the journal *Military Operations Research*, jointly awarded by the INFORMS' Military Applications Society and the Military Operations Research Society.
- Exceptional Scholar—Young Investigator Award, UB, 2013.
- Fellow, the 2011 U.S. Air Force Summer Faculty Fellowship Program (AF SFFP), sponsored by the Air Force Office of Scientific Research (AFOSR).
- Fellow, the 2009-2010 Next Generation of Hazards and Disasters Researchers Program, sponsored by the National Science Foundation (NSF).
- INFORMS, Decision Analysis Society, Student Paper Award, Honorable Mention, 2006.
- Intelligen's International Process Design Contest, Second Place Award, 2006.

V. B Teaching and Mentoring

- 2020 UB Teaching Innovation Award
- 2020 UB's nominee for the Geoffrey Marshall Mentoring Award, the Northeastern Association of Grad- uate Schools (NAGS)
- 2019-20 Excellence in Graduate Student Mentoring Award, University at Buffalo
- 2019 SEAS Best Senior Teacher of the Year Award, University at Buffalo
- 2019 UB Student Engagements Exemplary Faculty/Staff Mentor Award
- 2012 UB President Emeritus and Mrs. Martin Meyerson Award for Distinguished Teaching and Mentoring (formerly named Faculty Award for Excellence in Mentoring Undergraduate Research and Creative Activity)
- 2008 Graduate Student Mentor Award, University of Wisconsin-Madison

V. C Service, Leadership, and Others

- 2022 Fellow Award, Society for Risk Analysis (SRA), for substantial achievement in science or public policy relating to risk analysis and substantial service to the Society.
- 2023 INFORMS Diversity, Equity, and Inclusion (DEI) Ambassador.
- 2022 INFORMS Diversity, Equity, and Inclusion (DEI) Ambassador.
- 2021-2022 BFB#Mystory program Storyteller, Bridges from Borders.
- 2021 Panel Fellow, Game Changer Academies for Advancing Research Innovation (CGCA), CMMI, National Science Foundation.
- 2019 40 Under 40 Award, Buffalo Business First.
- 2018 Volunteer Service Award, INFORMS.
- 2017 Best Reviewer Award, *Risk Analysis*, Society for Risk Analysis.
- 2012 Outstanding Reviewer Award, *Journal of Infrastructure Systems*, American Society of Civil Engineers.

V. D Professional Development Grants

- New York State United University Professions—Individual Development Award: 2009, 2010, 2011, 2012, 2014, 2017, 2018, 2019, 2020.
- INFORMS, Decision Analysis Society, Student Travel Scholarship, 2007.
- Vilas Travel Grant Award, University of Wisconsin-Madison, 2007.
- Graduate Travel Grant, Department of ISyE, University of Wisconsin-Madison, 2006-2007; 2007-2008.
- NSF DMII Grantees Conference Student Travel Stipend, 2005.

V. E Other Honors

- Sigma Xi, 2008.
- INFORMS 2007 Future Academician Colloquium Participant.
- Outstanding Masters Thesis Award Nominee, nominated by the Department of Agricultural Economics, University of Kentucky, 2005.
- Distinguished Undergraduate Thesis Award, Southeast University, China, July 2002.
- Distinguished Graduate Award, Southeast University, China, July 2002.
- China Undergraduate Mathematical Contest in Modeling, Second Place Award in Jiang-su, 2000.
- Distinguished Student Scholarship, Southeast University, China, 1998, 1999, and 2001.

V. F Selected Publicity

- "Twitter Takeover Fuels Phishing Scams, Fake Verified Accounts," Campus Safety Magazine, November 22, 2022, 2022.
- "Public safety accounts urge caution on Twitter after changes," Associated Press News, November 19, 2022, 2022.
- "Public safety accounts urge caution on Twitter after changes," The Seattle Times, November 19, 2022, 2022.
- "Misinformation on Social Media: How to Debunk and Stop the Spread," Society for Risk Analysis podcast "'Let's Talk Risk' series, August 23, 2022.
- "Firms Conduct 'War Games' to Prepare for External Threats," *The Wall Street Journal*, September 24, 2020.
- "When Disaster Strikes, Disinformation Spreads," *Nexus Media News*, April 10, 2020.
- "Disinformation during a pandemic can be deadly," *Nexus Media News*, April 9, 2020.
- "Fighting fake news during disasters: Machine learning, game theory shown to be effective tools to monitor, debunk misinformation, *ORMS Today*, February, 2020.
- "Tracking storms of misinformation spread amid disastersMachine learning can be used to identify fake news shared via social media (cover story), *ISE Magazine*, 51(9): 28-32, 2019.
- "Some states receive an outsized share of federal fire protection money, new research suggests.," *Futurity.Org*, March 1, 2019
- "Federal fire grant spending could be more balanced, new model suggests," *Phys.Org*, February 25, 2019
- "Social Times: Twitter Has Fake News Ecosystem," *Market Research Updates*, February 20, 2019
- "Twitter Are Twitter Users Spreading The Fake News And Rumours?," *Industry News Wire*, February 4, 2019
- "The Year in Research: Twelve ways UB researchers made groundbreaking discoveries – and headlines – in 2018," *UB News Center*, December 21, 2018
- "Where'd You Hear That? A Rumor Mill Churns Amid Hurricane Michaels Rubble," *The New York Times*, October 18, 2018
- "How rumors spread on social media during weather disasters," *NSF Discovery*, September 18, 2018
- "Unwitting participants in the misinformation race," *Daily Sabah*, June 4, 2018
- "Can you trust Twitter in a crisis? The vast majority of users retweet rumours without question," *Spark CBC Radio*, May 27, 2018
- "Editorial: Slow & Boring Facts," *The Caledonian Record*, May 22, 2018

- "Heres how misinformation multiplies on Twitter in the midst of a disaster," *Metro*, May 21, 2018
- ""Fake news on Twitter causes problems during disasters," *StarTribune*, May 20, 2018
- "Science says that during disasters, people are terrible on Twitter," *The Washington Post*, May 17, 2018
- "Beware of Fake Tweets During Disasters," *Insurance Journal*, May 17, 2018
- "Researchers say Twitter users spread false news during disasters," *The Asian Age*, May 15, 2018
- "Twitter users likely to spread false information during disasters: Study," *Deccan Chronicle*, May 15, 2018
- "Active Twitter users likely to spread falsehoods during disasters," *The New Indian Express*, May 14, 2018
- "Active Twitter Users Spread Misinformation And Rumors During Crises, Study Finds," *International Business Times*, May 14, 2018
- "If You're Tweeting During a Disaster, You're Probably Spreading Fake News," *Gizmodo*, May 14, 2018
- "Active users most likely to spread 'fake news' during emergencies on Twitter," *The Economic Times*, May 14, 2018
- "Fewer than 10% of Twitter users actively call out fake news," *The Drum*, May 14, 2018
- "Few Twitter users make these responses to incorrect information, study says," *WCVB*, May 13, 2018
- "Few Twitter users make these responses to incorrect information, study says," *WLKY News*, May 13, 2018
- "Few Twitter users make these responses to incorrect information, study says," *WBALTV*, May 13, 2018
- "90% of 'Active' Twitter Users Spread Falsehoods During Disasters: Study," *NDTV*, May 12, 2018
- "90% of 'Active' Twitter Users Spread Falsehoods During Disasters: Study," *BGR*, May 12, 2018
- "Less than 10 percent of Twitter users questioned fake news, study suggests," *Digital Trends*, May 12, 2018
- "During disasters, active Twitter users likely to spread falsehoods," *ScienceDaily*, May 12, 2018
- "During disasters, active Twitter users likely to spread falsehoods," *Phys.Org*, May 11, 2018
- "Amusement park death highlights need for safety," *USA Today*, August 9, 2016.
- "Playing for resilience: Game theory and its applications can optimize responses to natural disasters and terrorism," *Industrial Engineer*, June 2015, 4 pages.
- Researcher Spotlight: Dr. Jun Zhuang, *START News*, November 20, 2013.
- CREATE Using Game Theory to Study Resource Allocation, *CREATE Report/Publication* March 18, 2013.
- Three Receive Faculty Mentoring Awards, *UB Reporter*, April 19, 2012.
- Faculty Research Update, *The Center for Geohazards Spring 2012 Newsletter*, April, 2012.
- Defending against a Terrorist, *Industrial Engineer*, 44(3): 55-56, March 2012.
- The Tradeoffs between Protecting against Man-made and Natural Disasters, *START News*, March 12, 2012.
- What NFL Coaches and Investors Share, *SmartMoney, The Wall Street Journal*, September 22, 2011.

- Undergraduate Research Highlights, *The Council on Undergraduate Research Quarterly*, 32(2): 23-24, Winter 2011.
- Celebration of Academic Excellence: Student Posters, *Buffalo Engineer*, Fall 2011.
- Faculty Research Update, *The Center for Geohazards Fall 2011 Newsletter*, October, 2011.
- New Research in Game Theory and Disaster Recovery Published, *CREATE Report/Publication* September 20, 2011.
- Subsidizing Investments in Security, *Industrial Engineer* 42(9):54, September 2010.
- Game Theory or Not Game Theory? Hybrid Defensive Resource Allocations, Stanford Graduate School of Business (GSB) News, June 2010.
- ISE's Zhuang Works toward Optimal Defender Strategies, UB Engineering eNEWS, Fall 2009.
- New Faces of Engineering 2009, nominated by Institute of Industrial Engineers, and selected by National Engineers Week Foundation, 2009.
- Extreme Engineer of the Month, *The Pre-Engineering Times: A publication of Junior Engineering Technical Society* 63:3-4, January 2008.
- Investment in Security, *Industrial Engineer* 39(3):53-54, March 2007.

V. G Selected Honors to My Students during the Period of Advisement

- Puneet Agarwal (graduate)
  - ✓ 2020 ISE Graduate Student Teaching Award
  - ✓ 2019 Geohazards research award from UB's Center for Geohazards Studies
- Ridwan Al Aziz (graduate)
  - ✓ 2019 ISE Teaching Assistant of the Year Award
- Kristen Alcazaren (undergraduate)
  - ✓ Undergraduate Research Award, UB Center for Undergraduate Research and Creative Activities (CURCA), 4/2013
- Margaret Ardizzone (undergraduate)
  - ✓ Supported by an NSF REU award for AY 2020-2021
- John Balzani (undergraduate)
  - ✓ Undergraduate Research Award, UB CURCA, 11/2013
- Adam Behrendt (undergraduate)
  - ✓ Supported by an NSF Research Experiences for Undergraduates (REU) award for AY 2016-2017
  - ✓ First author of two peer-reviewed journal articles with Dr. Zhuang
- Matthew Brondum (undergraduate)
  - ✓ Undergraduate Research Award, UB CURCA, 5/2013; 12/2013
  - ✓ Supported by an NSF REU award for AY 2013-2014
  - ✓ Senior Scholar, UB's School of Engineering and Applied Sciences, 2014
- Marie Catalano (undergraduate)
  - ✓ Undergraduate Research Award, UB CURCA, 4/2012; 12/2012
  - ✓ Supported by an NSF REU award for AY 2012-2013
  - ✓ Senior Scholar, UB's School of Engineering and Applied Sciences, 2013
- May Cheung (undergraduate)
  - ✓ Published an article in *Decision Analysis* as first author
  - ✓ UB's Undergraduate Research and Scholarship Award of Distinction, 2011

  - ✓ Senior Scholar, UB's School of Engineering and Applied Sciences, 2012

- John Coles (undergraduate and graduate)
  - ✓ NSF Graduate Research Fellowship, 2010-2013.
  - ✓ Honorable Mention, School of Engineering and Applied Sciences Poster Competition, 2011
  - ✓ SUNY Chancellors Award, 2009
  - ✓ Senior Scholar, UB's School of Engineering and Applied Sciences, 2009
  - ✓ Student Participation Grant from the 2011 NSF-CMMI conference, November 2010
  - ✓ 2011 Graduate School Ambassador Award, UB
  - ✓ 2011 Student Paper Award, Society for Risk Analysis (SRA)'s Decision Analysis and Risk Specialty Group
  - ✓ 2011 Student Paper Award, SRA's Security and Defense Specialty Group
  - ✓ 2012 Student Merit Award, SRA's Risk and Development Specialty Group
  - ✓ 2013-2014 NSF Doctoral Dissertation Research Improvement Grant
  - ✓ 2013 Quick Response Grant, Natural Hazards Center, (University of Colorado at Boulder)
  - ✓ 2013 Geohazards research award from UB's Center for Geohazards Studies
  - ✓ 2013 NSF Travel Grant Award to attend the 2013 ISERC conference
  - ✓ 2013 Student Poster Competition Award, First conference on Validating Models of Adversary Behavior, Buffalo/Niagara Falls, New York, June 23-26, 2013
  - ✓ 2013 INFORMS Judith Liebman Award

- Thomas Darlington (undergraduate)
  - ✓ Undergraduate Research Award, UB CURCA: 5/2013; 12/2013
  - ✓ Supported by an NSF REU award for AY 2013-2014

- Laura Devine (undergraduate)
  - ✓ Supported by an NSF REU award for AY 2015-2016

- Christopher Diaz (undergraduate)
  - ✓ Supported by an NSF REU award for AY 2014-2015

- Jodie-Ann Duquesnay (undergraduate)
  - ✓ Undergraduate Research Award, UB CURCA: 2/2012

- Colette Fraser (undergraduate)
  - ✓ Supported by an NSF REU awards (two times) for AY 2019-2020 and AY 2020-2021

- Peiqiu Guan (graduate)
  - ✓ 2012 Graduate Student Fellowship for the 2012 NSF CMMI Conference
  - ✓ 2012 Graduate School Ambassador Award, UB
  - ✓ 2013 Student Merit Award, SRA's Decision Analysis and Risk Specialty Group
  - ✓ 2013 Student Merit Award, SRA's Security and Defense Specialty Group
  - ✓ 2014 INFORMS Women in OR/MS (WORMS) Travel Award

- Fei He (graduate)
  - ✓ Semifinalist of the 2011 INFORMS Charlotte Interactive Session Competition
  - ✓ Best Paper Award Finalist, The 1st IEEE International Conference on Cyber-Physical Systems, Networks, and Applications (CPSNA 2013), August 19-20, 2013.

- Meilin He (graduate)
  - ✓ 2016 Student Merit Award, SRA's Economics Benefits Analysis Speciality Group

- Kyle Hunt (undergraduate and graduate)
  - ✓ 2022-2023 NSF Doctoral Dissertation Research Improvement Grant

  - ✓ 2022 SUNY GREAT Award
  - ✓ 2021-2022 IISE inaugural Future Faculty Fellow
  - ✓ 2021 Seth Bonder Scholarship for Applied Operations Research in Military and Security Applications, INFORMS
  - ✓ 2021 Harold O. Wolf Achievement Award
  - ✓ 2021-2024 NSF Graduate Research Fellowship
  - ✓ 2020 Student Merit Award, Society for Risk Analysis (SRA)'s Risk Policy and Law Specialty Group
  - ✓ 2020 ISE Celebration Honored Student Speaker
  - ✓ 2019 Student Merit Award, Society for Risk Analysis (SRA)s Decision Analysis and Risk Specialty Group
  - ✓ Supported by an NSF REU award (two times): AY 2018-2019, AY 2019-2020
  - ✓ Undergraduate Research Award, UB CURCA (two times), 3/2018; 9/2018
  - ✓ First place, 2018 ISE Student Poster Competition, 3/2018
  - ✓ 2019 UB's Undergraduate Research and Scholarship Award of Distinction
  - ✓ 2019 UB SEAS Deans Undergraduate Achievement Award
- Esther Jose (undergraduate)
  - ✓ 2021 Student Merit Award, Society for Risk Analysis (SRA)'s Economics and Benefits Analysis Specialty Group
  - ✓ 2021 UB Geohazards research award from UB's Center for Geohazards Studies
  - ✓ 2020 UB SEAS Deans Undergraduate Achievement Award
  - ✓ 2020 ISE Celebration Honored Student Speaker
  - ✓ 2020 IISE Northeast Regional Conference, Second Place Best Paper Award
  - ✓ 2020 J. Scott Fleming Merit Award
  - ✓ 2020 Tau Beta Pi Student Leadership Scholarship, NY Nu chapter
  - ✓ 2019 David Beneson Memorial Award
  - ✓ 2019 Frederick H Thomas Memorial Award
  - ✓ 2019 UB Engineering Alumni Association Leaders in Excellence Award
  - ✓ 2019 Tau Beta Pi National Scholar
  - ✓ 2019 Exemplary Student Leader Award
  - ✓ 2018 Frederick H. Thomas Memorial Scholarship
  - ✓ Third place, ISE 2019 poster competition award
  - ✓ 2019 National Tau Beta Pi Scholarship Award
- Elyse Levine (undergraduate)
  - ✓ Supported by an NSF REU award for AY 2018-2019
- Kathryn Lukasiewicz (undergraduate)
  - ✓ Undergraduate Research Award, UB CURCA, 2/2018
- Vineet Madasseri Payyappalli (graduate)
  - ✓ Honorable Mention, School of Engineering and Applied Sciences Poster Competition, 2017
  - ✓ Finalist, 2017 Decision Analysis Society Student Paper Award
- Giovanni Madejski (undergraduate)
  - ✓ Undergraduate Research Award, UB CURCA (2 times): 10/2012, 5/2013
- Netra Mittal (undergraduate)
  - ✓ The Honors College Research & Creativity Fund Award, 10/2021
- Elizabeth Newell (undergraduate)
  - ✓ Supported by an NSF REU award for AY 2012-2013

  - ✓ Undergraduate Research Award, School of Engineering and Applied Sciences, Summer 2010
  - ✓ Undergraduate Research Award, UB CURCA (4 times): 12/2011; 5/2012; 10/2012; 3/2013
- Ali Pala (graduate)
  - ✓ 2019 ISE Graduate Student Researcher of the Year Award
- Sarah Schwartz (undergraduate)
  - ✓ Undergraduate Research Award, UB CURCA, 2/2018
- Daniel Seaberg (undergraduate)
  - ✓ Supported by an NSF REU award for AY 2014-2015 and 2015-2016
  - ✓ Published an article in *Natural Hazards* as first author
- Urvashi Lalit Shah (graduate)
  - ✓ 2015 Graduate School Ambassador Award, UB
- Xiaojun Shan (graduate)
  - ✓ Honorable Mention, School of Engineering and Applied Sciences Poster Competition, 2010
  - ✓ Finalist, 2010 Decision Analysis Society Student Paper Award
  - ✓ Finalist, 2012 Decision Analysis Society Student Paper Award
  - ✓ Semifinalist of the 2011 INFORMS Charlotte Interactive Session Competition
  - ✓ Semifinalist of the 2012 INFORMS Interactive Prize Competition
- Paige Tesmer (undergraduate)
  - ✓ Undergraduate Research Award, UB CURCA, 4/2013
  - ✓ Supported by an NSF REU award for AY 2013-2014
- Ian Unson (graduate)
  - ✓ 2022 Student Merit Award, SRA' Security and Defense Specialty Group
- Bairong Wang (graduate)
  - ✓ 2017-2018 NSF Doctoral Dissertation Research Improvement Grant
- Jing Zhang (graduate)
  - ✓ 2015 Graduate School Ambassador Award, UB
  - ✓ 2017 Student Poster Competition Award, International Conference on Risk Analysis, Decision Analysis and Security, Tsinghua University, Beijing, China, July 21-23, 2017.

VI Professional Affiliations

- Institute for Operations Research and Management Science (INFORMS) (2004-present)
- Decision Analysis Society (DAS) (2004-present)
- Institute of Industrial and Systems Engineers (IISE) (2007-present)
- Society for Risk Analysis (SRA) (2007-present)
- American Association for the Advancement of Science (2020-present)

VII Courses Taught

VII. A University at Buffalo: Undergraduate Courses

- IE 101, Discover Industrial and Systems Engineering (1 credit hour): Spring 2016 (44), Spring 2017 (35), Spring 2018 (40), Spring 2019 (39), Spring 2020 (48)

- EAS 305, Applied Probability and Statistics Inference (4 credit hours): Enrollment: Fall 2008 (107), Fall 2009 (100), Summer 2010 (18), Fall 2010 (106), Fall 2011 (100), Fall 2012 (140), Fall 2013 (131), Fall 2014 (124), Fall 2015 (159)

VII. B University at Buffalo: Graduate/Undergraduate (Dual Listed) Courses

- IE 412/512, Decision Analysis (3 credit hours): Enrollment: Fall 2010 (39), Fall 2013 (85), Fall 2015 (51), Fall 2017 (39)

- IE 412e/512e, Decision Analysis (3 credit hours; fully online): Enrollment: Fall 2019 (82), Winter 2020 (21), Winter 2021 (46), Winter 2022 (55)

VII. C University at Buffalo: Graduate Courses

- IE 576, Applied Stochastic Processes (3 credit hours): Enrollment: Spring 2009 (19), Spring 2010 (17), Spring 2011 (19), Spring 2012 (13), Spring 2013 (29), Spring 2014 (31), Spring 2016 (23), Spring 2017 (23), Spring 2018 (18), Spring 2019 (21), Spring 2020 (27), Spring 2021 (7), Spring 2022 (53)

- IE 675, Game Theory (3 credit hours): Enrollment: Fall 2009 (19), Fall 2011 (17), Fall 2014 (15), Fall 2016 (20), Fall 2018 (20), Fall 2020 (7)

- IE 691, Research Seminar (0 credit hour): Enrollment: Spring 2021 (38)

VII. D University of Wisconsin-Madison: Undergraduate Course

- ISyE 320/321, Simulation and Probabilistic Modeling (4 credit hours): Enrollment: Spring 2008 (33)

VIII Publications

- Impact: Google scholar citation indices: citation=5,505; H-index=41

- Summary by Category:

Section	Category	#
VIII.A	Edited Books and Journal Special Issues	6
VIII.B	Peer-reviewed (refereed) Journal Articles	140
VIII.C	Book Chapters	10
VIII.D	Peer-reviewed (refereed) Full Papers in Conference Proceedings	22
VIII.E	Technical Reports	6
VIII.F	Conference Presentations and Posters	289
VIII.G	Invited Research Seminars/Webinars	90

VIII. A Edited Books and Journal Special Issues

[*V-6*] Long, E., G. Montibeller, and J. Zhuang (Eds.). *Decision Analysis*, Special issue on "Emerging Topics in Health Decision Analysis," 2022 (expected).

[*V-5*] Zhuang, J., C. Wang, and J. H. Lambert (Eds.). *Risk Analysis*, Special issue on "Risk Analysis in the Digital Era," 2022 (expected).

[*V-4*] Zhuang, J., V. M. Bier, and S. Guikema (Eds.). *Risk Analysis*, Special issue on "Adversary Behavior: Validating the Models," Volume 36, Issue 4, 2016.

[*V-3*] Hausken, K. and J. Zhuang (Eds.). "Game Theoretic Analysis of Congestion, Safety and Security: Networks, Air Traffic and Emergency Departments," Series in Reliability Engineering, Springer, 2015. ISBN 978-3-319-13009-5.

[*V-2*] Hausken, K. and J. Zhuang (Eds.). "Game Theoretic Analysis of Congestion, Safety and Security: Traffic and Transportation Theory," Series in Reliability Engineering, Springer, 2015. ISBN 978-3-319-11674-7.

[*V-1*] Zhuang, J., X. Xu, and G. Cai (Eds). *Discrete Dynamics in Nature and Society*, Special issue on "Discrete Dynamic Gaming Models in Supply Chain Management and Project Management," 2014.

VIII. B Peer-reviewed (refereed) Journal Articles (___♮: graduate student; ___♭: undergraduate student; ___♯: visiting scholars; =: list alphabetically by last names; ∗: corresponding author)

[*J-140*] Li, L., J. Zhou, J. Zhuang, and Q. Zhang "Gender-Specific Emotional Characteristics of Crisis Communication on Social Media: Case Studies of Two Public Health Crises," *Information Processing and Management*, 60(3): 103299, 2023.

[*J-139*] Wei, Z.♮ and J. Zhuang* "On the Adoption of Nonpharmaceutical Interventions during the Pandemic: An Evolutionary Game Model," *Risk Analysis*, forthcoming.

[*J-138*] Al Aziz, R.♮ and J. Zhuang "A Multi-attribute Utility Framework for Patients to Determine Childbirth Method Considering Uncertainties, Patient Preferences, Risk Attitudes, and Pregnancy Complications," *IISE Transactions on Healthcare Systems Engineering*, forthcoming.

[*J-137*] Hunt, K.♮, P. Agarwal♮, and J. Zhuang* "Monitoring Misinformation on Twitter during Crisis Events: A Machine Learning Approach," *Risk Analysis*, 42 (8), 1728-1748, 2022.

[*J-136*] Wang, X., Y. Yang, and J. Zhuang* "Pricing Decisions with Social Interactions: A Game-theoretic Model," *Decision Analysis*, forthcoming.

[*J-135*] Wan, Q.♮, X. Xu, K. Hunt♮, and J. Zhuang* "Stay Home or Not? Modeling Individuals Decisions During the COVID-19 Pandemic," *Decision Analysis*, 19(4): 319-336, 2022.

[*J-134*] Mahbub, N.♮, A. Le♮, and J. Zhuang "Online Crowd-funding Strategy: A Game-theoretical Approach to a Kickstarter Case Study," *Annals of Operations Research*, 315: 10191036, 2022.

[*J-133*] Chen, X., Y. Dong, K. Hunt♮, and Zhuang "Counterterrorism Resource Allocation during a Pandemic: The Effects of Dynamic Target Valuations when Facing a Strategic Terrorist," *Risk Analysis*, forthcoming.

[*J-132*] Long, E., G. Montibeller, and J. Zhuang "Health Decision Analysis: Evolution, Trends, and Emerging Topics," *Decision Analysis*, 19(4):255-264, 2022.

[*J-131*] Zhuang, J.*, C. Wang, and J. Lambert "Machine Learning and Other Information Analyses for Risk in Social Networks," *Risk Analysis*, 42 (8), 1603-1605, 2022.

[*J-130*] Jose, E.♮, P. Agarwal♮, J. Zhuang, and J. Swaminathan. "A Multi-criteria Decision Making Approach to evaluating the Performance of Indian Railway Zones," *Annals of Operations Research*, forthcoming.

[*J-129*] Gu, M.♯ , H. Guo, J. Zhuang*, Y. Du, L. Qian. "Social Media User Behavior and Emotions during Crisis Events," *International Journal of Environmental Research and Public Health*, 19(9):5197, 2022.

[*J-128*] Hunt, K.♮, P. Agarwal♮, and J. Zhuang "On the Adoption of New Technology to Enhance Counterterrorism Measures: An Attacker-defender Game with Risk Preferences," *Reliability Engineering and System Safety*, 218: 108151, 2022.

[*J-127*] Hunt, K.♮, A. Narayanan♮, and J. Zhuang "Blockchain in Humanitarian Operations Management: A Review of Research and Practice," *Socio-Economic Planning Sciences*, 80: 101175, 2022.

[*J-126*] Agarwal, P.♮, R. Al Aziz♮, and J. Zhuang* "Interplay of Rumor Propagation and Clarification on Social Media during Crisis Events—A Game-Theoretic Approach," *European Journal of Operational Research*, 298(2): 714-733, 2022.

[*J-125*] Coles, J.♮, J. Zhang♮, and J. Zhuang* "Bridging the Research-Practice Gap in Disaster Relief: Using the IFRC Code of Conduct to develop an aid model," *Annals of Operations Research*, 312, 1337-1357, 2022.

[*J-124*] Ding, X.♯, X. Zhang, R. Fan, Q. Xu, K. Hunt♮, and Jun Zhuang*, "Rumor Recognition Behavior of Social Media Users in Emergencies," *Journal of Management Science and Engineering*, 7(1): 36-47, 2022.

[*J-123*] Song, C.♮ , J. Guo, F. Gholizadeh♭, and J. Zhuang. "Quantitative Analysis of Food Safety Policy – Based on Text Mining Methods," *Foods*, 11(21), 3421, 2022.

[*J-122*] Xia, L., B. Chen, K. Hunt♭, J. Zhuang, and C. Song♭. "Food Safety Awareness and Opinions: A Social Network Analysis Approach," *Foods*, 11(18), 2909, 2022.

[*J-121*] Song, C.♮ , D. Yu, E. Jose♭, J. Zhuang, and H. Geng. "A Hybrid Recommendation Approach for Viral Food Based on Online Reviews," *Foods*, 10(8), 1801, 2021.

[*J-120*] Gu, M.♯ , H. Guo, and J. Zhuang*. "Social Media Behavior and Emotional Evolution during Emergency Events," *Healthcare*, 9(9): 1109, 2021.

[*J-119*] Li, J., Z. Ye, J. Zhuang, N. Okada, L. Huang, G. Han, "Changes of public risk perception in China: 2008-2018," *Science of The Total Environment*, 799: 149453, 2021.

[*J-118*] Wan, Q.♮, X. Xu, J. Zhuang, and B. Pan. "A Sentiment Analysis-based Expert Weight Determination Method for Large-scale Group Decision-making Driven by Social Media Data," *Expert Systems With Applications*, 185: 115629, 2021.

[*J-117*] Hunt, K.♮, P. Agarwal♮, and J. Zhuang* "Technology Adoption for Airport Security: Modeling Public Disclosure and Secrecy in an Attacker-defender Game," *Reliability Engineering & System Safety*, 207: 107355, 2021.

[*J-116*] Li, L., Q. Zhang, and J. Zhuang* "Delete or Not: A Game Theoretical Model for Soft-Censorship of Rumor," *Risk Analysis*, 41(10): 1840-1859, 2021.

[*J-115*] Dong, Y., X. Chen, K. Hunt♮, and Zhuang "Defensive Resource Allocation: The Roles of Forecast Information and Risk Control," *Risk Analysis*, 41(8): 1304-1322, 2021.

[*J-114*] Jiang, M.♮, Q. Gao♯, and J. Zhuang* "Reciprocal Spreading and Debunking Processes of Online Misinformation: A New Rumor Spreading-Debunking Model with A Case Study," *Physica A*, 565, 125572, 2021.

[*J-113*] Zhang, J.♮, Y. Wang♮, and J. Zhuang* "Modeling Multi-Target Defender-attacker Games with Quantal Response Attack Strategies," *Reliability Engineering & System Safety*, 205: 107165, 2021.

[*J-112*] Behrendt, A.♭, K. Lukasiewicz♭, D. Seaberg♭, and J. Zhuang*. "Trends in Multidisciplinary Hazard and Disaster Research: A 1982-2017 Case Study," *Risk Analysis*, 41(7): 1195-1203, 2021.

[*J-111*] Agarwal, P.♮, K. Hunt♭, J. Zhuang, B. Sarkar, A. Sarkar, and R. Sharma "An Exploratory Analysis for Performance Assessment of State Police Forces in India: An Eclectic Approach," *Operational Research*, 21, 1125-1151, 2021.

[*J-110*] Gao, Q.l♯, J. Zhuang, T. Wu, and H. Shen "Transmission Dynamics and Quarantine Control of COVID-19 in Cluster Community: A New Transmission-Quarantine Model with Case Study for Diamond Princess," *Mathematical Models and Methods in Applied Sciences*, 31(3): 619-648, 2021.

[*J-109*] Song, C.♮, J. Guo♮, and J. Zhuang* "Analyzing Passengers' Emotions following Flight Delays – A 2011-2019 Case Study on Skytrax comments," *Journal of Air Transport Management*, 89, 101903, 2020.

[*J-108*] Hunt, K.♭, B. Wang♮, and J. Zhuang* "Misinformation Debunking and Cross-Platform Information Sharing through Twitter during Hurricanes Harvey and Irma: A Case Study on Shelters and ID Checks," *Natural Hazards*, 103(1), 861-883, 2020.

[*J-107*] Agarwal, P.♮, J. Tang♮, A. Lakshmi Narayanan♮, and J. Zhuang* "Big Data and Predictive Analytics in Fire Risk using Weather Data," *Risk Analysis*, 40(7): 1438-1449, 2020.

[*J-106*] Agarwal, P.♮, K. Hunt♭, S. Srinivasan♮, and J. Zhuang* Fire Code Inspection and Compliance: A Game-Theoretic Model Between Fire Inspection Agencies and Building Owners, *Decision Analysis*, 17(3): 208-226, 2020.

[*J-105*] Aziz, R.♮, M. He♮ , and J. Zhuang* An Attacker-defender Resource Allocation Game With Substitution and Complementary Effects, *Risk Analysis*, 40(7): 1481-1506, 2020.

[*J-104*] Chu, Z. A. Zhou♯, Y. Ma, J. Zhuang, L. Zhang, and J. Ma. "Comparison of Municipal Solid Waste Treatment Capacity in China: A Tournament Graph Method," *Journal of Material Cycles and Waste Management*, 22, 19131921, 2020.

[*J-103*] Wan, Q.♯, X. Xu, X. Chen, and J. Zhuang "A Two-stage Optimization model for Large-Scale Group Decision-Making in Disaster Management: Minimizing Group Conflict and Maximizing Individual Satisfaction," *Group Decision and Negotiation*, 29, 901-921, 2020.

[*J-102*] Wang, J.♯ , J. Hu♯, S. Shen, J. Zhuang, S. Ni. "Crime Risk Analysis through Big Data Algorithm with Urban Metrics," *Physica A*, 545: 123627, 2020.

[*J-101*] Guan, L., Y. Mu, X. Xu, L. Zhang, and J. Zhuang=. "Keep It or Give Back? Optimal Pricing Strategy of Reward-based Crowdfunding with Hybrid Mechanism," *International Journal of Production Research*, 58(22): 6868-6889, 2020.

[*J-100*] Yang, Z. J, and J. Zhuang. "Information Seeking and Information Sharing Related to Hurricane Harvey," *Journalism & Mass Communication Quarterly*, 97(4): 1054-1079, 2020.

[*J-99*] Song, C.♮ , C. Guo, K. Hunt♭ and J. Zhuang. "An Analysis of Public Opinions Regarding Take-Away Food Safety: A 2015-2018 Case Study on Sina Weibo," *Foods*, 9(4), 511, 2020.

[*J-98*] Shan, X.♮, and J. Zhuang, "A Game-Theoretic Approach to Modeling Attacks and Defenses of Smart Grids," *Reliability Engineering & System Safety*, 195: 106683, 2020.

[*J-97*] He, F.♮ , J. Zhuang, and N. Rao "Discrete Game-Theoretic Analysis of Attack and Defense in Correlated Cyber-Physical Systems," *Annals of Operations Research*, 294, 741-767, 2020.

[*J-96*] Zhai, Q., R. Peng, and J. Zhuang. "Defender-Attacker Games with Asymmetric Player Utilities," *Risk Analysis*, 40(2): 408-420, 2020.

[*J-95*] Gao, Q.♯ , and J. Zhuang "Stability Analysis and Control Strategies for Worm Attack in Mobile Net- works via a VEIQS Propagation Model," *Applied Mathematics and Computation*, 368: 124584, 2020.

[*J-94*] Zhang, J.♮, and J. Zhuang* "Modeling a Multi-target Attacker-defender Game with Multiple Attack Types," *Reliability Engineering & System Safety*, 185: 465-475, 2019.

[*J-93*] Pala, A.♮, and J. Zhuang*. "Information Sharing in Cybersecurity: A Review," *Decision Analysis*, 16(3): 172-196, 2019.

[*J-92*] Behrendt, A♭, V. Madasseri Payyappalli♮, and J. Zhuang* "Modeling the Cost Effectiveness of Fire Protection Resource Allocation in the United States: Models and a 1980-2014 Case Study," *Risk Analysis*, 39(6): 1358-1381, 2019.

[*J-91*] Xu, Z.♮, and J. Zhuang*. "A Study on A Sequential One-Defender-N-Attacker Game," *Risk Analysis*, 39(6): 1414-1432, 2019.

[*J-90*] Madasseri Payyappalli, V.♮, and J. Zhuang* "A Data-Driven Integer Programming Model for Soccer Clubs' Decision Making on Player Transfers," *Environment Systems and Decisions*, 39, 466-481, 2019.

[*J-89*] Coles, J.♮, J. Zhang♮, and J. Zhuang* "Scalable Simulation of a Disaster Response Agent-based network Management and Adaptation System (DRAMAS)," *Journal of Risk Research*, 22(3): 269-290, 2019.

[*J-88*] Gao, Q.♯, J. Zhuang, Z. Huang "Asymptotics for a delay-claim risk model with diffusion, dependence structures and constant force of interest," *Journal of Computational and Applied Mathematics*, 353: 219-231, 2019.

[*J-87*] Chu, Z., B. Wu, Z. He, J. Zhuang, and W. Wang. "The Policy-making Trend Analysis of Municipal Solid Waste in China 1980-2015," *Waste Management & Research*, 37(6): 601-610, 2019.

[*J-86*] Wang, B.♮, and J. Zhuang*. "Rumor Response, Debunking Response, and Decision Makings of Misinformed Twitter Users during Disasters," *Natural Hazards*, 93(3): 1145-1162, 2018.

[*J-85*] Pala, A.♮, J. Zhuang*. "Security Screening Queues with Impatient Applicants: A New Model with a Case Study," *European Journal of Operational Research*, 265(3): 919-930, 2018.

[*J-84*] Pala, A.♮, J. Zhang♮, J. Zhuang*, and N. Allen. "Behavior Analysis of Illegal Fishing in the Gulf of Mexico," *Journal of Homeland Security and Emergency Management*, 15(1): 1-10, 2018.

[*J-83*] Zhang, J.♮, J. Zhuang*, and B. Behlendorf. "Stochastic shortest path network interdiction with a case study of Arizona-Mexico border," *Reliability Engineering & System Safety*, 179: 62-73, 2018.

[*J-82*] Zhang, J.♮, J. Zhuang* and V. R. R. Jose "The Role of Risk Preferences in a Multi-target Attacker-Defender Resource Allocation Game," *Reliability Engineering & System Safety*, 169: 95-104, 2018.

[*J-81*] Coles, J.♮, J. Zhang♮, and J. Zhuang* "Partner Selection in Disaster Relief: Partnership formation in the presence of incompatible agencies," *International Journal of Disaster Risk Reduction*, 27: 94-104, 2018.

[*J-80*] Guan, P.♮, J. Zhang♮, V. Madasseri Payyappalli♮, and J. Zhuang* "Modeling and Validating Public-private Partnerships in Disaster Management," *Decision Analysis*, 15(2): 55-71, 2018.

[*J-79*] Song, C.♮ and J. Zhuang*. "Modelling Precheck Parallel Screening Process in the Face of Strategic Applicants with Incomplete Information and Screening Errors," *Risk Analysis*, 38(1): 118-133, 2018.

[*J-78*] Song, C.♮, and J. Zhuang*. "Regulating Food Risk Management—A Government-Manufacturer Game facing Endogenous Consumer Demand," *International Transactions in Operational Research*, 25(6): 1855-1878, 2018.

[*J-77*] He, M.♮, and L. Devine♭, and J. Zhuang*. "Perspectives on Cybersecurity Information Sharing among Multiple Stakeholders using a Decision Theoretic Approach," *Risk Analysis*, 38(2): 215-225, 2018.

[*J-76*] Shan, X.♮ and J. Zhuang. "Modeling Cumulative Defensive Resource Allocation against a Strategic Attacker in a Multi-period Multi-target Game," *Reliability Engineering & System Safety*, 179: 12-26, 2018.

[*J-75*] Li, F.♮, Q. Zhu♮, and J. Zhuang. "Analysis of Fire Protection Efficiency in United States: A Two-stage DEA based Approach," *OR Spectrum*, 40(1): 23-68, 2018.

[*J-74*] Jose, V. R. R., J. Zhuang*. "Incorporating Risk Preferences in Stochastic Noncooperative Games," *IISE Transactions*, 50(1): 1-13, 2018.

[*J-73*] Rao, N., C. Ma, F. He♮, D. Yau, and J. Zhuang. "Cyber-Physical Correlation Effects in Defense Games for Large Discrete Infrastructures," *Games*, 9(3), Article 52, 1-24, 2018.

[*J-72*] Rao, N., C. Ma, K. Hausken, F. He♮, D. Yau, and J. Zhuang. "Defense Strategies for Asymmetric Networked Systems with Discrete Components," *Sensors*, 18(5), Article 1421, 2018.

[*J-71*] Jin, J., J. Zhuang and Q. Zhao. "Supervision After Certification: An Evolutionary Game Analysis for Chinese Environmental Labeled Enterprises," *Sustainability*, 10(5), Article 1494, 2018.

[*J-70*] Wu, Y., Z. Chu, and J. Zhuang. "Evaluation of Optional Fee Structures for Solid Waste Management in China," *Waste Management & Research*, 36(6): 513-519, 2018.

[*J-69*] He, Z., Z. Chu., M. Zhao, J. Zhuang, and F. Liu. "Policy-making Coordination of Municipal Solid Waste Policies in China: A Content Analysis," *Journal of Material Cycles and Waste Management*, 20(2): 10731084, 2018.

[*J-68*] Wang, T.♯, J. Zhuang. "The True Meaning of Terrorism and Response to Terrorism," *Social Sciences*, 6(6): 160-168, 2017.

[*J-67*] Seaberg, D.♭, L. Devine♭, and J. Zhuang*. "A Review of Game Theory Applications in Natural Disaster Management Research," *Natural Hazards*, 89(3): 1461-1483, 2017.

[*J-66*] Wang, B.♮, and J. Zhuang* "Crisis Information Distribution on Twitter: A Content Analysis of Tweets during Hurricane Sandy," *Natural Hazards*, 89(1): 161-181, 2017.

[*J-65*] Madasseri Payyappalli, V.♮, J. Zhuang* and V. R. R. Jose "Deterrence and Risk Preferences in a Sequential Attacker-Defender Game with Continuous Defense Effort," *Risk Analysis*, 37(11): 2229-2245, 2017.

[*J-64*] Guan, P.♮, M. He♮, J. Zhuang*, and S. Hora. "Modeling A Multi-target Attacker-defender Game with Budget Constraints," *Decision Analysis*, 14(2): 87-107, 2017.

[*J-63*] Song, C.♮, and J. Zhuang*. "N-Stage Security Screening Strategies in the Face of Strategic Applicants," *Reliability Engineering & System Safety*, 165: 292-301, 2017.

[*J-62*] Song, C.♮, and J. Zhuang*. "Two-Stage Security Screening Strategies in the Face of Strategic Applicants, Congestions and Screening Errors," *Annals of Operations Research*, 258(2): 237-262, 2017.

[*J-61*] Song, C.♮, and J. Zhuang*. "Modeling A Government-Manufacturer-Farmer Game for Food Supply Chain Risk Management," *Food Control*, 78: 443-455, 2017.

[*J-60*] Li, S.♮, J. Zhuang*, and S. Shen. "Dynamic Forecasting Conditional Probability of Bombing Attacks based on Time Series and Intervention Analysis," *Risk Analysis*, 37(7): 1287-1297, 2017.

[*J-59*] Li, S.♮, J. Zhuang*, and S. Shen. "A Three-stage Evacuation Decision-making and Behavior Model for the Onset of an Attack," *Transportation Research Part C*, 79: 119-135, 2017.

[*J-58*] Li, S.♮, J. Zhuang*, S. Shen, and J. Wang. "Driving-forces Model on Individual Behavior in Scenarios considering Moving Threat Agents," *Physica A*, 481: 127-140, 2017.

[*J-57*] Zhuang, J., M. Hu, and F. Mousapour♮, "Value-Driven Design Process: A Systematic Decision-Making Framework Considering Different Attribute Preferences from Multiple Stakeholders," *Journal of Solar Energy Engineering*, 139(2): 021001, 2017, 6 pages.

[*J-56*] Zahiri, B.♮, J. Zhuang, and M. Mohammadi. "Toward an Integrated Sustainable-resilient Supply Chain: A Pharmaceutical Case Study," *Transportation Research Part E*, 103: 109-142, 2017.

[*J-55*] Tutun, S.♮, M. T. Khasawneh, and J. Zhuang. "New Framework that uses Patterns and Relations to understand Terrorist Behaviors," *Expert Systems with Applications*, 78: 358-375, 2017.

[*J-54*] Niyirora, J.♮ and J. Zhuang. "Fluid Approximations and Control of Queues in Emergency Departments," *European Journal of Operational Research*, 261(3): 1110-1124, 2017.

[*J-53*] Ahmed, M. T.♮, J. Zhuang, and C. Kwon, "Understanding Conflicting Interests of a Government and a Tobacco Manufacturer: A Game-Theoretic Approach," *Group Decision and Negotiation*, 26(6): 1209-1230, 2017.

[*J-52*] Chu, Z., Y. Wu♮, and J. Zhuang. "Municipal Household Solid Waste Fee Based on Increasing-block Pricing Model in Beijing, China," *Waste Management & Research*, 35(3): 228-235, 2017.

[*J-51*] Ackerman, G., J. Zhuang, and S. Weerasuriya♮. "Cross-Milieu Terrorist Collaboration: Using Game Theory to Assess the Risk of a Novel Threat," *Risk Analysis*, 37(2): 342-371, 2017.

[*J-50*] Coles, J.♮, J. Zhang♮, and J. Zhuang* "Experiments on Partnership and Decision Making in a Disaster Environment," *International Journal of Disaster Risk Reduction*, 18: 181-196, 2016.

[*J-49*] Coles, J.♮, J. Zhang♮, and J. Zhuang* "Partnership Behavior in Disaster Relief Operations: A Case Study Comparison of the Responses to the Tornado in Joplin, Missouri and Hurricane Sandy along the Jersey Coast," *Natural Hazards*, 84(1), 625-647, 2016.

[*J-48*] Coles, J.♮ and J. Zhuang*. "Introducing Terrorist Archetypes: Using Terrorist Objectives and Behavior to Predict New, Complex, and Changing Threats," *Military Operations Research*, 21(4): 47-62, 2016.

[*J-47*] He, F.♮, and J. Zhuang "Balancing Pre-disaster Preparedness and Post-disaster Relief," *European Journal of Operational Research*, 252(1): 246-256, 2016.

[*J-46*] Guan, P.♮ and J. Zhuang*. "Modeling Resources Allocation in Attacker-defender Games with 'Warm Up' CSF," *Risk Analysis*, 36(4): 776-791, 2016.

[*J-45*] Xu, J.♮ and J. Zhuang*. "Modeling Costly Learning and Counter-learning in a Defender-attacker Game with Private Defender Information," *Annals of Operations Research*, 236(1), 271-289, 2016.

[*J-44*] Xu, J.♮, J. Zhuang* and Z. Liu. "Modeling and Mitigating the Effects of Supply Chain Disruption in a Defender-attacker Game," *Annals of Operations Research*, 236(1), 255-270, 2016.

[*J-43*] Hausken, K. and J. Zhuang=. "How Companies and Governments React to Disasters," *Journal of Risk and Reliability*, 230(4) 417-426, 2016.

[*J-42*] Hausken, K. and J. Zhuang=. "The Strategic Interaction between a Company and the Government Surrounding Disasters," *Annals of Operations Research*, 237(1), 27-40, 2016.

[*J-41*] Xiang, Y., J. Zhuang*. "Medical Resource Allocation Serving Disaster Victims with Deteriorating Health Conditions," *Annals of Operations Research*, 236(1), 177-196, 2016.

[*J-40*] Sabbaghi, M.♮, S. Behdad, and J. Zhuang. "Managing Consumer Behavior toward On-Time Return of the Waste Electrical and Electronic Equipment: A Game Theoretic Approach," *International Journal of Production Economics*, 182, 545-563, 2016.

[*J-39*] Raihanian, A.♮, S. Behdad, and J. Zhuang. "Agent Based Simulation of Waste Electrical and Electronic Equipment Recovery," *Journal of Manufacturing Science and Engineering*, 138(10): 101007, 2016, 11 pages.

[*J-38*] Rao, N., S. Poole, C. Ma, F. He♮, J. Zhuang, and D. Yau. "Defense of Cyber Infrastructures Against Cyber-Physical Attacks Using Game-Theoretic Models," *Risk Analysis*, 36(4): 694-710, 2016.

[*J-37*] Ning, M.♯, J. Gong♮, X. Zheng♯, and J. Zhuang* "Does New Rural Pension Scheme Decrease Elderly Labor Supply? Evidence from CHARLS," *China Economic Review*, 41: 315-330, 2016.

[*J-36*] Chu, Z, W. Wang♮, B. Wang♮, and J. Zhuang. "Research on Factors Influencing Municipal Household Solid Waste Separate Collection: Bayesian Belief Networks," *Sustainability*, 8(2), 152, 2016, 14 pages.

[*J-35*] Guan, P.♮ and J. Zhuang*. "Modeling Public-private Partnerships in Disaster Management: A Sequential Game with Prospect Utility," *Decision Analysis*, 12(4): 173-189, 2015.

[*J-34*] Nikoofal, M. E.♮ and J. Zhuang=*. "On the Value of Exposure and Secrecy of Defense System: First-Mover Advantage vs. Robustness," *European Journal of Operational Research*, 246(1): 320-330, 2015.

[*J-33*] Yaraghi, N.♮, P. Tabesh♮, P. Guan♮ and J. Zhuang* "Comparison of Analytical Hierarchy Process (AHP) and Monte-Carlo AHP under Different Levels of Uncertainty," *IEEE Transactions on Engineering Management*, 62(1): 122-132, 2015.

[*J-32*] Shan, X.♮ and J. Zhuang*. "Modeling Credible Retaliation Threats in Deterring the Smuggling of Nuclear Weapons using Partial Inspection—A Three-Stage Game," *Decision Analysis*, 11(1): 43-62, 2014.

[*J-31*] Shan, X.♮ and J. Zhuang*. "Subsidizing to Disrupt Terrorism Supply Chain—A Four Player Sequential Game," *Journal of the Operational Research Society*, 65(7): 1108-1119, 2014.

[*J-30*] Zhuang, J.*, G. Saxton, and H. Wu♮. "Publicity vs. Impact in Nonprofit Disclosures and Donor Preferences: A Sequential Game with One Nonprofit Organization and N Donors," *Annals of Operations Research*, 221(1): 469-491, 2014.

[*J-29*] Ali, M. M., M. Golalikhani♮, and J. Zhuang=. "A Computational Study on Different Penalty Approaches for Solving Constrained Global Optimization Problems with the Electromagnetism-like Method," *Optimization*, 63(3): 403-419, 2014.

[*J-28*] Shan, X.♮ and J. Zhuang*. "Cost of Equity in Homeland Security Resource Allocation In the Face of A Strategic Attacker," *Risk Analysis*, 33(6): 1083-1099, 2013.

[*J-27*] Shan, X.$^{\natural}$ and J. Zhuang*. "Hybrid Defensive Resource Allocations in the Face of Partially Strategic Attackers in a Sequential Defender-attacker Game," *European Journal of Operational Research*, 228(1): 262-272, 2013.

[*J-26*] Hausken, K. and J. Zhuang$^{=}$. "The Impact of Disaster on the Interaction between Company and Government," *European Journal of Operational Research*, 225(2): 363-376, 2013.

[*J-25*] Saxton, G. and J. Zhuang. "A Game-Theoretic Model of Disclosure-Donation Interactions in the Market for Charitable Contributions," *Journal of Applied Communication Research*, 41(1): 40-63, 2013.

[*J-24*] Guo, L.$^{\natural}$, S. Huang$^{\natural}$, J. Zhuang and A. W. Sadek. "Modeling Parking Behavior under Uncertainty: A Static Game Theoretic versus a Sequential Neo-additive Capacity Modeling Approach," *Networks and Spatial Economics*, 13(3): 327-350, 2013.

[*J-23*] Jose, V. R. R. and J. Zhuang*. "Technology Adoption, Accumulation, and Competition in Multi-period Attacker-Defender Games," *Military Operations Research*, 18(2): 33-47, 2013.

[*J-22*] Nikoofal, M. E.$^{\natural 1}$ and J. Zhuang$^{=*}$. "Robust Allocation of a Defensive Budget Considering an Attackers Private Information," *Risk Analysis*, 32(5): 930-943, 2012.

[*J-21*] Cheung, M.$^{\flat}$ and J. Zhuang*. "Regulation Games Between Government and Competing Companies: Oil Spills and Other Disasters," *Decision Analysis*, 9(2): 156-164, 2012.

[*J-20*] Hausken, K. and J. Zhuang$^{=*}$. "The Timing and Deterrence of Terrorist Attacks due to Exogenous Dynamics," *Journal of the Operational Research Society*, 63(6): 726-735, 2012.

[*J-19*] He, F.$^{\natural}$ and J. Zhuang*. "Modeling 'Contracts' between Terrorist Groups and Governments in a Sequential Game," *Journal of the Operational Research Society*, 63(6): 790-809, 2012.

[*J-18*] Coles, J.$^{\natural}$, J. Zhuang*, and J. Yates. "Case Study in Disaster Relief: A descriptive analysis of agency partnerships in the aftermath of the January 12th, 2010 Haitian earthquake," *Socio-Economic Planning Sciences*, 46(1): 67-77, 2012.

[*J-17*] Coles, J.$^{\natural}$ and J. Zhuang*. "Decisions in Disaster Recovery Operations: A Game Theoretic Perspective on Organization Cooperation," *Journal of Homeland Security and Emergency Management*, 8(1), Article 35, 1-14, 2011.

[*J-16*] Urschel, J.$^{\natural}$ and J. Zhuang*. "Are NFL Coaches Risk and Loss Averse? Evidence From Their Use of Kickoff Strategies," *Journal of Quantitative Analysis in Sports*, 7(3), Article 14, 2011.

[*J-15*] Wang, X. and J. Zhuang$^{=*}$. "Balancing Congestion and Security in the Presence of Strategic Applicants with Private Information," *European Journal of Operational Research*, 212(1): 100-111, 2011.

[*J-14*] Golalikhani, M.$^{\natural}$ and J. Zhuang*. "Modeling Arbitrary Layers of Continuous Level Defenses in Facing with A Strategic Attacker," *Risk Analysis*, 31(4): 533-547, 2011.

[*J-13*] Zhuang, J.* and V. M. Bier. "Secrecy and Deception at Equilibrium, with Applications to Anti-Terrorism Resource Allocation," *Defence & Peace Economics*, 22(1): 43-61, 2011.

[1]Mr. Nikoofal was an Iranian student, accepted my research assistantship in spring 2009, but was not able to obtain the student visa to enter the U.S. We have been working together remotely.

[*J-12*] Hausken, K. and J. Zhuang$^{=*}$. "Defending Against a Terrorist Who Accumulates Resources," *Military Operations Research*, 16(1): 21-39, 2011.

[*J-11*] Hausken, K. and J. Zhuang$^{=*}$. "Governments' and Terrorists' Defense and Attack in a T-period Game," *Decision Analysis*, 8(1): 46-70, 2011.

[*J-10*] Hausken, K. and J. Zhuang$^{=*}$. "Defending Against a Stockpiling Terrorist," *The Engineering Economist*, 56(4): 321-353, 2011.

[*J-9*] Zhuang, J.* "Impacts of Subsidized Security on Stability and Total Social Costs of Equilibrium Solutions in an N-Player Game with Errors," *The Engineering Economist*, 55(2): 131-149, 2010.

[*J-8*] Zhuang, J.* and V. M. Bier. "Reasons for Secrecy and Deception in Homeland-Security Resource Allocation," *Risk Analysis*, 30(12): 1737-1743, 2010.

[*J-7*] Zhuang, J.*, V. M. Bier and O. Alagoz. "Modeling Secrecy and Deception in a Multiple-period Attacker-Defender Signaling Game," *European Journal of Operational Research*, 203(2): 409-418, 2010.

[*J-6*] Dighe, N., J. Zhuang*, and V. M. Bier. "Secrecy in Defensive Allocations as a Strategy for Achieving More Cost-effective Attacker Deterrence," *International Journal of Performability Engineering*, 5(1): 31-43, 2009.

[*J-5*] Zhuang, J.* and V. M. Bier. "Balancing Terrorism and Natural Disasters—Defensive Strategy with Endogenous Attack Effort," *Operations Research* 55(5): 976-991, 2007.

[*J-4*] Zhuang, J.*, V. M. Bier and A. Gupta. "Subsidies in Interdependent Security with Heterogeneous Discount Rates," *The Engineering Economist* 52(1): 1-19, 2007.

[*J-3*] Zhuang, J.*, M. A. Marchant, S. Nokes and H. Strobel. "Economic Analysis of Cellulase Production Methods for Bio-ethanol," *Applied Engineering in Agriculture* 23(5): 679-687, 2007.

[*J-2*] Zhuang, J.*, M. A. Marchant, C. L. Schardl and C. M. Butler. "Economic Analysis of Replacing Endophyte-Infected with Endophyte-Free Tall Fescue Pastures," *Agronomy Journal* 97(3): 711-716, 2005.

[*J-1*] Peng, X., M. A. Marchant, X. D. Qin, and J. Zhuang. "Chinese Consumers' Preferences for Livestock Products," *The International Food and Agribusiness Management Review* 8(4): 62-76, 2005.

VIII. C Book Chapters (___: student of Zhuang; =: list alphabetically by last names)

[*B-10*] Hunt, K., and J. Zhuang. "Blockchain for Disaster Management," Chapter 10 in *Big Data for Service Operations Management*, A. Emrouznejad and C. Vincent (eds.), pp. 253269, Springer, 2021.

[*B-9*] Shan, X., and J. Zhuang. "Multi-target Homeland Security Resource Allocation Games considering Equity Constraints and Partially Strategic Attackers," Chapter 27 in *Improving Homeland Security Decisions*, A. Abbas, M. Tambe, and D. von Winterfeldt (eds.), pp. 678-708, 2017.

[*B-8*] Zhang, J., and J. Zhuang. "Validation, Verification, and Uncertainty Quantification for models with intelligent adversaries," Chapter 41 in *Handbook of Uncertainty Quantification*, R. Ghanem, D. Higdon and H. Owhadi (eds.), pp. 1401-1420, Springer, 2017.

[*B-7*] Shan, X., and J. Zhuang. "Subsidizing to Disrupt a Terrorism Supply Chain—A Four-player Game," Chapter 12 in *OR, Defence and Security*, R. A. Forder (ed.), pp. 272-292, Series in OR Essentials, Palgrave Macmillan, 2015.

[*B-6*] Wang, X., C. Song and J. Zhuang. "Simulating A Multi-Stage Screening Network—A Queueing Theory and Game Theory Application," in *Game Theoretic Analysis of Congestion, Safety and Security*, K. Hausken and J. Zhuang (eds.), pp. 55-80, Springer Series in Reliability Engineering, Springer, 2015.

[*B-5*] Coles, J. and J. Zhuang. "Decisions in Disaster Recovery Operations: A Game Theoretic Perspective on Organization Cooperation," Chapter 19 in *Handbook of Emergency Response—A Human Factors and Systems Engineering Approach*, A. D. Badiru and L. Racz (ed.), pp. 465-480, Taylor and Francis/CRC Press, 2013.

[*B-4*] Coles, J. and J. Zhuang. "Disaster Recovery Life Cycle," in Encyclopedia of Crisis Management, Geoffrey, G. J. K. B. Statler, M. Penuel, R. Hagen (eds.), SAGE Reference, 2013.

[*B-3*] Shan, X. and J. Zhuang. "Nuclear proliferation," in Encyclopedia of Crisis Management, Geoffrey, G. J. K. B. Statler, M. Penuel, R. Hagen (eds.), SAGE Reference, 2013.

[*B-2*] Hausken, K., V. M. Bier, and J. Zhuang. "Defending against Terrorism, Natural Disaster, and All Hazards," Chapter 4 in *Combining Reliability and Game Theory*, Bier, V. M. and Azaiez, N. (eds.), Springer International Series In Operations Research & Management Science, pp. 65-97, 2009. (Full paper refereed.)

[*B-1*] Zhuang, J., and V. M. Bier. "Katrina vs 9/11: How Should We Optimally Protect Against Both?," Chapter 4 in *Natural Disaster Analysis After Hurricane Katrina: Risk Assessment, Economic Impacts and Social Implications*, H. W. Richardson, P. Gordon, and J. E. Moore, II (eds.), Edward Elgar Publishing, pp. 71-83, 2008.

VIII. D Full Papers in Conference Proceedings (___: student of Zhuang; =: list alphabetically by last names)

[*P-23*] Wei, Z., and J. Zhuang, "Mask or No Mask during the COVID-19 Pandemic: A Game-Theoretic Approach," *Proceedings of the 2022 Industrial and Systems Engineering Research Conference (IISE 2022)*, Seattle, Washington, May 21-24, 2022. (Full paper refereed. 8 pages.)

[*P-22*] Hunt, K., P. Agarwal, and J. Zhuang. "Applying Machine Learning to Track Misinformation During Disasters," *Proceedings of the 2019 Industrial and Systems Engineering Research Conference (IISE 2019)*, Orlando, Florida, May 18-21, 2019. (Full paper refereed. 8 pages.)

[*P-21*] Xu, W., W. Wang, Q. He, C. Liu, and J. Zhuang. "An improved multi-objective particle swarm optimization algorithm and its application in vehicle scheduling," *Chinese Automation Congress*, Jinan, China, October 20-22, 2017. (Full paper refereed, 4230-4235, 6 pages.)

[*P-20*] Rao, N., C. Y. T. Ma, K. Hausken, F. He, D. Yau., and J. Zhuang. "Game-Theoretic Strategies for Asymmetric Networked Systems," *Proceedings of the 20th International Conference on Information Fusion (FUSION 2017)*, Xi'an, China, July 10-13, 2017. (Full paper refereed. 8 pages.)

[*P-19*] Rao, N., N. Imam, C. Y. T. Ma, K. Hausken, F. He, and J. Zhuang. "On Defense Strategies for System of Systems Using Aggregated Correlations," *Proceedings of the 2017 IEEE International Systems Conference (IEEE SysCon 2017)*, Montreal, Quebec, Canada, April 24-27, 2017. (Full paper refereed. 6 pages.)

[*P-18*] Ceker, H., J. Zhuang, S. Upadhyaya, L. Q. Duy and S. B. Hee. "Deception-based Game Theoretical Approach to Mitigate DoS Attacks" *Proceedings of the Conference on Decision and Game Theory for Security (GameSec 2016)*, November 2-4, 2016, New York, New York (Full paper refereed. 20 pages.)

[*P-17*] Rao, N., C. Y. T. Ma, K. Hausken, F. He, and J. Zhuang. "Game-Theoretic Strategies for Systems of Components Using Product-Form Utilities," *Proceedings of the 2016 IEEE International Conference on Multisensor Fusion and Integration for Intelligent Systems (MFI 2016)*, Baden-Baden, Germany, September 19-21, 2016. (Full paper refereed. XX pages.)

[*P-16*] Rao, N., C. Y. T. Ma, K. Hausken, F. He, and J. Zhuang. "Defense Strategies for Infrastructures with Multiple Systems of Components," *Proceedings of the 19th International Conference on Information Fusion (FUSION 2016)*, Heidelberg, Germany, July 5-8, 2016. (Full paper refereed. 8 pages.)

[*P-15*] Raihanian, A., S. Behdad, and J. Zhuang. "Agent Based Simulation Optimization of Waste Electrical and Electronics Equipment Recovery," *Proceedings of the ASME 2016 International Manufacturing Science and Engineering Conference (MSEC2016)*, Blacksburg, Virginia, June 27-July 1, 2016 (Full paper refereed. 10 pages.)

[*P-14*] Rao, N., C. Y. T. Ma, U. Shah, F. He, and J. Zhuang. "On Resilience of Cyber-Physical Infrastructures Using Discrete Product-Form Games," *Proceedings of the 18th International Conference on Information FUSION (FUSION 2015)*, Washington, D.C., July 6-9, 2015. (Full paper refereed. 8 pages.)

[*P-13*] Catalano, M., E. Newell, A. Pala, J. Coles, and J. Zhuang. "A 2008-2013 Case Study: US Visa Applicant Security Screening Wait Time Analysis," *Proceedings of the 2015 Industrial and Systems Engineering Research Conference (ISERC 2015)*, Nashville, Tennessee, May 30-June 2, 2015. (Full paper refereed. 8 pages.)

[*P-12*] Rao, N., C. Y. T. Ma, F. He, J. Zhuang, and D. Yau. "Cyber-Physical Correlations for Infrastructure Resilience: A Game-Theoretic Approach," *Proceedings of the 17th International Conference on Information FUSION (FUSION 2014)*, Salamanca, Spain, July 7-10, 2014. (Full paper refereed. 8 pages.)

[*P-11*] He, F., J. Zhuang, N. Rao, C. Y. T. Ma, and D. K. Y. Yau. "Game-Theoretic Resilience Analysis of Cyber-Physical Systems," *Proceedings of the 1st IEEE International Conference on Cyber-Physical Systems, Networks, and Applications (CPSNA 2013)*, Taipei, Taiwan, August 19-20, 2013. (Full paper refereed, acceptance rate =37%, 6 pages.)

- 2013 CPSNA Best Paper Award Finalist

[*P-10*] Rao, N., S. Poole, C. Y. T. Ma, F. He, J. Zhuang, and D. Yau. "Infrastructure Resilience Using Cyber-Physical Game-Theoretic Approach," *Proceedings of the 1st IEEE International Symposium on Resilient Cyber Systems (ISRCS13)*, San Francisco, California, August 13-15, 2013. (Full paper refereed. 6 pages.)

[*P-9*] Rao, N., S. Poole, C. Ma, F. He, J. Zhuang, and D. Yau. "Cyber and Physical Information Fusion for Infrastructure Protection: A Game-Theoretic Approach," *Proceedings of the 16th International Conference on Information FUSION (FUSION 2013)*, Istanbul, Turkey, July 9-12, 2013. (Full paper refereed. 8 pages.)

[*P-8*] Rao, N., S. Poole, C. Ma, F. He, J. Zhuang, and D. Yau. "Game-Theoretic Approach to Cyber-Physical Infrastructures: UltraScience Net Case Study," *Proceedings of the third Workshop on Design, Modeling and Evaluation of Cyber Physical Systems (CyPhy'13)*, Philadelphia, Pennsylvania , April 8-11, 2013. (Full paper refereed. 5 pages.)

[*P-7*] Hsu, W., E. Newell, J. Zhuang, and D. Ross. "Heuristics, Optimization, and Equilibrium Analysis for Automated Wargames," *Proceedings of the 2012 Industrial and Systems Engineering Research Conference*. (Full paper refereed. 10 pages.)

[*P-6*] He, F., J. Zhuang, and N. Rao. "Game-Theoretic Analysis of Attack and Defense in Cyber-Physical Network Infrastructures," *Proceedings of the 2012 Industrial and Systems Engineering Research Conference*. (Full paper refereed. 8 pages.)

[*P-5*] Rao, N., S. Poole, C. Ma, F. He, J. Zhuang, and D. Yau. "Cloud Computing Infrastructure Robustness: A Game Theory Approach," *Proceedings of the International Conference on Computing, Networking and Communications*, Maui, Hawaii, January 30 - February 2, 2012. (Full paper refereed, acceptance rate =35%. 5 pages.)

[*P-4*] Zhuang, J. and E. A. Newell. "Technology Evolutionary Games in Complex Transportation Systems in the Face of Adaptive Adversaries," invited white paper published at Homeland Security Studies and Analysis Institute website, following the Fifth Annual U.S. Department of Homeland Security University Network Summit, Washington D.C., March 2011. (Abstract refereed. 13 pages.)

[*P-3*] Zhuang, J., J. Coles, and J. Yates. "Measuring Partnership Efficacy in Haitian Disaster Recovery," *Proceedings of 2011 NSF Engineering Research and Innovation Conference*, Atlanta, Georgia. (14 pages.)

[*P-2*] Jin, S., Z. Liu, and J. Zhuang$^{=}$. "Monte Carlo Simulation-Based Supply Chain Disruption Management for Wargames," *Proceedings of the 2010 Winter Simulation Conference*, p.p. 2682-2693, 2010. (Full paper refereed.)

[*P-1*] Hao, M., S. Jin and J. Zhuang. "Robustness of Optimal Defensive Resource Allocations in the Face of Less than Fully Rational Attackers," *Proceedings of the 2009 Industrial Engineering Research Conference*, p.p. 886-891, 2009. (Full paper refereed.)

VIII. E Technical Reports

[*T-8*] Zhuang, J., R. Al Aziz, and K. Hunt, "Identifying and Analyzing the Factors that Influence Fluctuations in Undocumented Immigration at the Southwest U.S. Border," Department of Homeland Security Technical Report, 2020.

[*T-7*] Zhuang, J., R. Al Aziz, and K. Hunt, "A Novel Data-driven Model for Quantifying the Threats and Consequences of U.S. Border Risks," Department of Homeland Security Technical Report, 2020.

[*T-6*] Zhuang, J., V. M. Payyappalli, A. Behrendt, and K. Lukasiewicz. "Total Cost of Fire in the United States," Fire Protection Research Foundation report, October 2017.

[*T-5*] Behlendorf, B., D. Zietz, J Zhang, J. Zhuang, M. Johns. Countering the Inhumane: Modeling Probable Pathways for Human Smuggling and Trafficking Along the U.S.-Mexico Border. Research Report, START, 2015.

[*T-4*] Ackerman, G. A., J. M. Bale, T. Bacon and J. Zhuang. "Where the Extremes Touch: Assessing the Potential for Collaboration Between Islamists and Right- or Left-Wing Extremists," Final Report to the Science and Technology Directorate, U.S. Department of Homeland Security (College Park, MD: START, 2012).

[*T-3*] Zhuang, J., S. Bury and J. Ferrio. "A Stochastic Multi-Stage Global Supply Chain Optimization Model under Uncertainty," Dow Internal Report (Dow Confidential), The Dow Chemical Company, Freeport, Texas, 2007.

[*T-2*] Zhuang, J., V. M. Bier. and A. Gupta. "Subsidies in Interdependent Security with Heterogeneous Discount Rates," CREATE Report #06-002, University of Southern California, Los Angeles, California, 2006.

[*T-1*] Zhuang, J. and V. M. Bier. "Subsidized Security and Stability of Equilibrium Solutions in an N-Player Game with Errors," Center for Risk and Economic Analysis of Terrorism Events (CREATE) Report #05-008, University of Southern California, Los Angeles, California, 2005.

VIII. F Conference Presentations and Posters (___: student of Zhuang; ‡: presenting author; =: list alphabetically by last names)

[*C-299*] Jose, V., N. Mahbub, and J. Zhuang, "Optimal Interdiction of Interdependent Human and Drug Trafficking Networks," EURO 2022, Espoo, Finland, July 3-6, 2022.

[*C-298*] Unson, I., K. Hunt, and J. Zhuang, "A Game-Theoretic Framework for Multi-Target, Multi-Layer Defense Against Strategic Attackers," 2022 Advances in Decision Analysis Conference (ADA 2022), Arlington, Virginia, June 22-24, 2022.

[*C-297*] Hunt, K., B. Behlendorf, and J. Zhuang, "Near-repeat Terrorism: Identifying and Analyzing the Spatiotemporal Attack Patterns of Major Terrorist Organizations," 2022 Advances in Decision Analysis Conference (ADA 2022), Arlington, Virginia, June 22-24, 2022.

[*C-296*] Hunt, K., and J. Zhuang, "Models for Technology Adoption and Information Disclosure in Homeland Security," 2022 Advances in Decision Analysis Conference (ADA 2022), Arlington, Virginia, June 22-24, 2022.

[*C-295*] Wei, Z., and J. Zhuang, "Mask or No Mask during the COVID-19 Pandemic: A Game-Theoretic Approach," 2022 Institute of Industrial and Systems Engineering Conference (IISE 2022), Seattle, Washington, May 21-24, 2022.

[*C-294*] Jose, E., and J. Zhuang, "A Game Theory Model of Public-Private Partnerships in Prescribed Fire," 2022 Institute of Industrial and Systems Engineering Conference (IISE 2022), Seattle, Washington, May 21-24, 2022.

[*C-293*] Zhuang, J., K. Hunt, P. Agarwal, and R. A. Aziz, "Managing Misinformation on Social Media during Disasters: Machine Learning and Game-Theoretic Approaches," INFORMS Optimization Society Conference, Greenville, South Carolina, March 13-15, 2022.

[*C-292*] Zhuang, J., K. Hunt, P. Agarwal, and R. A. Aziz, "Managing Misinformation on Social Media during Disasters: Machine Learning and Game-Theoretic Approaches," INFORMS Computing Society Conference, Tampa, Florida, January 23-25, 2022.

[*C-291*] Zhuang, J. "Managing Misinformation on Social Media during Disasters: Machine Learning and Game-Theoretic Approaches," Center for Information Integrity Kick-Off Symposium, University at Buffalo, January 21, 2022.

[*C-290*] Jose, E., and J. Zhuang. "A Game Theory Model of Public-Private Partnerships in Prescribed Fires," 2021 Society for Risk Analysis (SRA 2021) Annual Meeting, Virtual, December 5-9, 2021.

[*C-289*] Ackerman, G., K. Hunt, and J. Zhuang. "Operational Implications: Modeling, Validation and Red Teaming," 2021 Society for Risk Analysis (SRA 2021) Annual Meeting, Virtual, December 5-9, 2021.

[*C-288*] Hunt, K., and J. Zhuang. "On The Adoption Of New Technology To Enhance Counterterrorism Measures: Attacker-defender Games" 2021 Institute for Operations Research and the Management Sciences (INFORMS 2021) Annual Meeting, Anaheim, California, October 24-27, 2021.

[*C-287*] Zhuang, J. "Information Sharing in Cyber Security," 2021 DAS-SRA Summer Conference on Emerging Risks, Virtual, June 22-23, 2021.

[*C-286*] Hunt, K., and J. Zhuang. "Adopting Technology to Enhance Homeland Security: Attacker defender Games," USNA Optimization and Operations Research Conference, Virtual, June 4, 2021.

[*C-285*] Jose, E., J. Zhuang, and Q. He. "Predicting Increasing PPE Demand in Hospitals Due to COVID 19: A Stochastic Approach Using Discrete-time Markov Chain," 2021 Institute of Industrial and Systems Engineering Conference (IISE 2021), Virtual, May 22-25, 2021.

[*C-284*] Jose, E., and J. Zhuang. "Public-Private Partnership of Prescribed Fires," 2021 Institute of Industrial and Systems Engineering Conference (IISE 2021), Virtual, May 22-25, 2021.

[*C-283*] Hunt, K., and J. Zhuang. "Technology Adoption for Airport Security: Attacker-defender Games," 2020 Society for Risk Analysis (SRA 2020) Annual Meeting, Virtual, December 13-17, 2020.

[*C-282*] Hunt, K., and J. Zhuang. "Technology Adoption for Airport Security: Modeling Public Disclosure and Secrecy in an Attacker-defender Game," 2020 INFORMS Annual Meeting; Virtual, November 10-13, 2020.

[*C-281*] Zhuang, J. "Big Data and Predictive Analytics in Fire Risk using Weather Data," European Fire Safety Community Digital Summit 2020, October 29, 2020.

[*C-280*] Jose, E., and J. Zhuang. "Modeling and Optimizing Prescribed Fires for Managing Wildfire Risks," IISE Northeast Regional Conference, Erie, Pennsylvania, February 28 - March 1, 2020.

[*C-279*] Zhuang, J. "Quantifying the Effectiveness of Border Security Investment," 2020 INFORMS Conference on Security, Monterey, California, February 9-11, 2020.

[*C-278*] Zhuang, J. "Modeling Rumor Spreading and Debunking Strategies on Social Media During Disasters," 2020 INFORMS Conference on Security, Monterey, California, February 9-11, 2020.

[*C-277*] Agarwal, P., K. Hunt, R. A. Aziz, and J. Zhuang. "Rumor Tracking and Strategic Decision-Making during Disasters using Supervised Machine Learning and Game Theory," 2019 Society for Risk Analysis (SRA 2019) Annual Meeting, Arlington, Virginia, December 8-12, 2019.

[*C-276*] Agarwal, P., E. Jose, and J. Zhuang. "Effectiveness of Prescribed Fires in Wildfire Mitigation," 2019 Society for Risk Analysis (SRA 2019) Annual Meeting, Arlington, Virginia, December 8-12, 2019.

[*C-275*] Aziz, R. A., and J. Zhuang. "Twitter Diffusion Life-Cycle: A Twitter Tale of Hurricane," 2019 Society for Risk Analysis (SRA 2019) Annual Meeting, Arlington, Virginia, December 8-12, 2019.

[*C-274*] Aziz, R. A., N. Mahbub, H. K. Paul, J. Zhuang, and S. Mukherjee. "A Spatial and Temporal Analysis of Impact of Climatic and Physical Factors on Bridge Health," 2019 Society for Risk Analysis (SRA 2019) Annual Meeting, Arlington, Virginia, December 8-12, 2019.

[*C-273*] Hunt, K., P. Agarwal, and J. Zhuang. "Monitoring Misinformation on Twitter During Crisis Events: A Machine Learning Approach," 2019 Society for Risk Analysis (SRA 2019) Annual Meeting, Arlington, Virginia, December 8-12, 2019.

[*C-272*] Zhuang, J. "A Novel Data-driven Model for Quantifying the Threats & Consequences of Northern Border Risks," DHS-CAOE Biennial Presentation, Washington, D.C., November 14-15, 2019.

[*C-271*] Zhuang, J. "Blockchain and Emergency Management" (keynote), International Symposium on Emergency Management 2019 (ISEM'19), Wuhan, China, November 7-9, 2019.

[*C-270*] Agarwal, P., K. Hunt, R. A. Aziz, and J. Zhuang. "Rumor Tracking and Strategic Decision-Making during Disasters using Supervised Machine Learning and Game Theory" (flash talk + poster), 2019 Institute for Operations Research and the Management Sciences (INFORMS 2019) Annual Meeting, Seattle, Washington, October 20-23, 2019.

[*C-269*] Devine, L., N. Mahbub, and J. Zhuang. "Data Analytical Models Of Human Trafficking And Interactional Illicit Supply Networks" (poster), 2019 The Institute for Operations Research and the Management Sciences Annual Meeting (INFORMS 2019), Seattle, Washington, October 20-23, 2019.

[*C-268*] Aziz, R. A., P. Agarwal, N. Mahbub, Q. He, and J. Zhuang. "Application of Social Media Image Classification to Detect Infrastructure Damage during Natural Disasters," 2019 The Institute for Operations Research and the Management Sciences Annual Meeting (INFORMS 2019), Seattle, Washington, October 20-23, 2019.

[*C-267*] Aziz, R. A., and J. Zhuang. "Twitter Diffusion Life-Cycle: A Twitter Tale of Hurricane," 2019 The Institute for Operations Research and the Management Sciences Annual Meeting (INFORMS 2019), Seattle, Washington, October 20-23, 2019.

[*C-266*] Hunt, K., and J. Zhuang. A Blockchain Framework to Improve Emergency Communications, 2019 Institute for Operations Research and the Management Sciences (INFORMS) Annual Meeting, Seattle, Washington, October 20-23, 2019.

[*C-265*] Hunt, K., P. Agarwal, and J. Zhuang. "Tracking Misinformation on Social Media: A Machine Learning Approach," 2019 Institute for Operations Research and the Management Sciences (INFORMS) Annual Meeting, Seattle, Washington, October 20-23, 2019.

[*C-264*] Mahbub, N.,, and J. Zhuang. "Analysis of Social Characteristics to Predict Human Trafficking," 2019 Institute for Operations Research and the Management Sciences (INFORMS) Annual Meeting, Seattle, Washington, October 20-23, 2019.

[*C-263*] Zhuang, J. "Quantifying the Effectiveness of Border Security Investment," 2019 Institute for Operations Research and the Management Sciences (INFORMS) Annual Meeting, Seattle, Washington, October 20-23, 2019.

[*C-262*] Jose, E.,, K. Hunt, P. Agarwal, and J. Zhuang. "Misinformation Spreading Detecting and Debunking During Disasters" (Keynote), The 19th Annual Technology & Homeland Security Forum, Niagara Falls, New York, October 23, 2019.

[*C-261*] Zhuang, J., K, Hunt, R. A. Aziz, and P. Agarwal. "Tracking and Managing Misinformation on Social Media during Disasters," Great Lakes Security Day (GLSD) 2019, Buffalo, New York, September 6, 2019.

[*C-260*] Zhuang, J. "Game Theory and National Security," Statistical and Applied Mathematical Sciences Institute (SAMSI) Games, Decisions, Risk and Reliability Program Opening Workshop, Durham, North Carolina, August 5-9, 2019.

[*C-259*] Hunt, K., P. Agarwal, and J. Zhuang. "The Spread of Misinformation on Social Media During Disasters: A Machine Learning Approach" (poster), The Second Conference on Risk Analysis, Decision Analysis and Security, Buffalo/Niagara, New York, July 30-August 2, 2019.

[*C-258*] Aziz, R. A., P. Agarwal, N. Mahbub, Q. He, and J. Zhuang. "Application of Social Media Image Classification to Detect Infrastructure Damage during Natural Disasters" (poster), The Second Conference on Risk Analysis, Decision Analysis and Security, Buffalo/Niagara, New York, July 30-August 2, 2019.

[*C-257*] Zhuang, J., K, Hunt, R. A. Aziz, and P. Agarwal. "Tracking and Managing Misinformation on Social Media during Disasters," The Second Conference on Risk Analysis, Decision Analysis and Security, Buffalo/Niagara, New York, July 30-August 2, 2019.

[*C-256*] Jose, E., and J. Zhuang. "Effectiveness of Prescribed Fires in Wildfire Mitigation," 2019 Institute of Industrial and Systems Engineering Conference (IISE 2019), Orlando, Florida, May 18-21, 2019.

[*C-255*] Agarwal, P., K. Hunt, and J. Zhuang. "Tracking Misinformation on Twitter during Disasters: A Machine Learning Approach," The Institute of Industrial and Systems Engineering Conference (IISE 2019), Orlando, Florida, May 18-21, 2019.

[*C-254*] Agarwal, P., K. Hunt, R.A. Aziz, and J. Zhuang. "Rumor Tracking and Strategic Decision-Making during Disasters using Supervised Machine Learning and Game Theory" (poster), 2019 Institute of Industrial and Systems Engineering Conference (IISE 2019), Orlando, Florida, May 18-21, 2019.

[*C-253*] Hunt, K., P. Agarwal, and J. Zhuang. "Applying Machine Learning to Track Misinformation During Disasters," 2019 Institute of Industrial and Systems Engineering Conference (IISE 2019), Orlando, Florida, May 18-21, 2019.

[*C-252*] Hunt, K., P. Agarwal, and J. Zhuang. "Tracking Misinformation on Twitter During Disasters: A Machine Learning Approach," 2019 Institute of Industrial and Systems Engineering Conference (IISE 2019), Orlando, Florida, May 18-21, 2019.

[*C-251*] Zhuang, J.‡. "Modeling Rumor Spreading and Debunking Strategies on Social Media During Disasters" (**honorary keynote**), International Nuclear Science and Technology Conference (INST2019), Bangkok, Thailand, February 4-6, 2019.

[*C-250*] Hunt, K.‡, and J. Zhuang. "Comparative Analysis of Information Flow and Rumor Debunking and Spreading through Twitter During Hurricanes Harvey and Irma," SRA Annual Meeting, New Orleans, Louisiana, December 2-6, 2018.

[*C-249*] Hunt, K.‡, B. Wang, and J. Zhuang. "Comparative Analysis of Rumor Debunking Efforts and Cross-Platform Sourcing through Twitter During Hurricanes Harvey and Irma," INFORMS Annual Meeting, Phoenix, Arizona, November 4-7, 2018.

[*C-248*] Hunt, K.‡, and J. Zhuang. "Comparative Analysis of Information Flow and Rumor Debunking and Spreading through Twitter During Hurricanes Harvey and Irma," INFORMS Annual Meeting, Phoenix, Arizona, November 4-7, 2018.

[*C-247*] Hunt, K.‡, and J. Zhuang. "Tools and Methods to Identify and Control Misinformation on Social Media," INFORMS Annual Meeting, Phoenix, Arizona, November 4-7, 2018.

[*C-246*] Ye, P., *andJ.Zhuang*‡. "Denuclearization or Not? A Multiple-player Sequential Game Model," INFORMS Annual Meeting, Phoenix, Arizona, November 4-7, 2018.

[*C-245*] Zhuang, J.‡. "Rumor Spreading and Debunking on Social Media: Case Studies during recent Disasters" (**honorary keynote**) International Symposium on Emergency Management 2018 (ISEM'18), Beijing, China, November 2-4, 2018.

[*C-244*] Zhuang, J.‡, K. Hunt, P. Agarwal, R. Al Aziz, . "Communication and Misinformation: A Comprehensive Outlook at Disaster Response on Social Media" (keynote), Technology and Homeland Security Forum, Niagara Falls, New York, October 24, 2018.

Hunt, K., B. Wang, and J. Zhuang. "Comparative Analysis of Rumor Debunking Efforts and Cross-Platform Sourcing through Twitter During Hurricanes Harvey and Irma," 2018 ASCE Infrastructure Resilience Division Research Forum, Reston, Virginia, July 13, 2018.

Hunt, K., and J. Zhuang. Analyzing and Modeling the Spread of Misinformation on Twitter During Natural Disasters" (poster), 2018 Natural Hazards Workshop and Researchers Meeting, Denver, Colorado, July 8-12, 2018.

[*C-243*] Zhuang, J.‡. "Total Cost of Fire in the United States" (invited talk), NFPA Annual Conference and Expo, Las Vegas, Nevada, June 11-14, 2018.

[*C-242*] Behrendt, A., K. Lukasiewicz, D. Seaberg, and J. Zhuang‡. "Trends in Multidisciplinary Hazard Research: A 1996-2016 Case Study" NSF Interdisciplinary Methods Workshop, Boulder, Colorado, February 8-9, 2018.

[*C-241*] Han, X., Q. He‡, and J. Zhuang. "Online Traffic Signal Coordination with a Game Theoretic Approach" (poster), Transportation Research Board Annual Meeting, Washington, D.C., January 7-11, 2018.

[*C-240*] Wang, B.‡, and J. Zhuang. "Rumor Response, Debunking Response, and Decision Makings of Misinformed Twitter Users During Disasters," SRA Annual Meeting, Arlington, Virginia, December 10-14, 2017.

[*C-239*] Payyappalli, V. M.‡, A. Behrendt, and J. Zhuang. "Estimating Effectiveness of Investment, Optimal Resource Allocation, and Predictive Risk Analytics for Fire Protection," SRA Annual Meeting, Arlington, Virginia, December 10-14, 2017.

[*C-238*] Payyappalli, V. M.‡, A. Behrendt, and J. Zhuang. "Estimating Effectiveness of Investment, Optimal Resource Allocation, and Predictive Risk Analytics for Fire Protection," INFORMS Annual Meeting, Houston, Texas, October 22-25, 2017.

[*C-237*] Wang, B., and J. Zhuang‡. "Crisis communication and rumor management using social media during disasters," INFORMS Annual Meeting, Houston, Texas, October 22-25, 2017.

[*C-236*] Shan, X.‡, and J. Zhuang. " Empirical Study on Effects of Defense Resource Allocations," INFORMS Annual Meeting, Houston, Texas, October 22-25, 2017.

[*C-235*] Zhang, J., and J. Zhuang‡. " Modeling Multi-target Defender-attacker Games with Quantal Response Attack Strategies," INFORMS Annual Meeting, Houston, Texas, October 22-25, 2017.

[*C-234*] Zhuang, J.‡. "Crisis communication and rumor management using social media during disasters" (**honorary keynote**) International Symposium on Emergency Management 2017 (ISEM'17), Dalian, China, October 14-15, 2017.

[*C-233*] Zhuang, J.‡. "Total Cost of Fire in the United States," National Fire Protection Association (NFPA) Workshop on Economic Impact of Codes and Standards, Washington, D.C., October 4, 2017.

[*C-232*] Zhuang, J.‡. "Crisis communication and rumor management using social media during disasters," International Conference on Risk Analysis, Decision Analysis and Security, Tsinghua University, Beijing, China, July 21-23, 2017.

[*C-231*] Wang, B., and J. Zhuang‡. "Crisis communication and rumor management using social media during disasters," INFORMS Advances in Decision Analysis conference, Austin, Texas, June 26-27, 2017.

[*C-230*] Madasseri Payyappall, V.‡, A. Behrendt, and J. Zhuang. "Predictive Risk Analytics, Estimating Effectiveness of Investment, and Optimal Resource Allocation for Fire Protection" (poster), NFPA Annual Conference and Expo, Boston, Massachusetts, June 11-14, 2017.

[*C-229*] Wang, B., and J. Zhuang‡. "Crisis communication and rumor management using social media during disasters," 5th Symposium on Games and Decisions in Reliability and Risk (GDRR), Madrid, Spain, June 7-9, 2017.

[*C-228*] Madasseri Payyappall, V.‡, A. Behrendt, and J. Zhuang. "Predictive Risk Analytics, Estimating Effectiveness of Investment, and Optimal Resource Allocation for Fire Protection" (poster), ISERC Annual Conference, Pittsburgh, Pennsylvania, May 20-23, 2017.

[*C-227*] Wang, B.‡, and J. Zhuang. "A case study on the use of Twitter for crisis communication during Hurricane Sandy" (poster), SRA Annual Meeting, San Diego, California, December 11-15, 2016.

[*C-226*] Madasseri Payyappall, V.‡, A. Behrendt, and J. Zhuang. "Cost-benefit analysis of fire protection resource allocation in the United States: models and a 1980-2011 case study," SRA Annual Meeting, San Diego, California, December 11-15, 2016.

[*C-225*] Shan, X.‡, J. Zhuang, and N. Rao. "Game-theoretic model for attack and defense of smart grids at three levels" (poster), SRA Annual Meeting, San Diego, California, December 11-15, 2016.

[*C-224*] He, M.‡, and J. Zhuang. "An attacker-defender resource allocation game with complementary or substituting effects" (poster), SRA Annual Meeting, San Diego, California, December 11-15, 2016.

[*C-223*] He, M.‡, and J. Zhuang. "Subsidizing cybersecurity information sharing: a game between A Government and N Companies" (poster), SRA Annual Meeting, San Diego, California, December 11-15, 2016.

[*C-222*] Ceker, H.‡, J. Zhuang, S. Upadhyaya, Q. D. La, and B. Soong. "Deception-based Game Theoretical Approach to Mitigate DoS Attacks," 2016 Conference on Decision and Game Theory for Security, New York, New York, November 2-4, 2016.

[*C-221*] Madasseri Payyappall, V.‡, A. Behrendt, and J. Zhuang. "Modeling Fire Risk And Resource Allocation For Fire Protection And Safety," INFORMS Annual Meeting, Nashville, Tennessee, November 13-16, 2016.

[*C-220*] Wang, B.‡, and J. Zhuang. "Crisis Information Distribution Among Official Users In Twitter Based On Hurricane Sandy," INFORMS Annual Meeting, Nashville, Tennessee, November 13-16, 2016.

[*C-219*] Wang, B.‡, and J. Zhuang. "Information Network Design And Optimization With Social Media In Disaster Management" (poster), INFORMS Annual Meeting, Nashville, Tennessee, November 13-16, 2016.

[*C-218*] Pala, A.‡, and J. Zhuang. "Subsidizing Cybersecurity Information Sharing: A Game Between A Government And N-Companies," INFORMS Annual Meeting, Nashville, Tennessee, November 13-16, 2016.

[*C-217*] Pala, A.‡, V. Madasseri Payyappall, and J. Zhuang. "Behavioral Analysis Of Illegal Fishery In The Gulf Of Mexico," INFORMS Annual Meeting, Nashville, Tennessee, November 13-16, 2016.

[*C-216*] He, M.‡, and J. Zhuang. "An Attacker-defender Resource Allocation Game With Complementary Or Substituting Effects," INFORMS Annual Meeting, Nashville, Tennessee, November 13-16, 2016.

[*C-215*] Zhuang, J.‡, V. Madasseri Payyappall, and A. Behrendt. "Cost-benefit analysis of fire protection resource allocation in the United States: models and a 1980-2011 case study," National Fire Protection Agency Workshop on Economic Decision Making in Fire and Electrical Safety, Boston, Massachusetts, August 17, 2016.

[*C-214*] Zhuang, J.‡ "Future Research Directions and Funding Opportunities for Homeland Security and Disaster Management," INFORMS International Conference, Waikoloa, Hawaii, June 12-15, 2016.

[*C-213*] Zhang, J., and J. Zhuang‡ "Validation Models of Adversary behavior," SAMSI-Games and Decisions in Reliability and Risk Workshop, Research Triangle Park, North Carolina, May 16-20, 2016.

[*C-212*] Zhang, J.‡, J. Zhuang, and B. Behlendorf. "Stochastic Shortest Path Network Interdiction Considering Partially Strategic Attacker" (poster), SAMSI-Games and Decisions in Reliability and Risk Workshop, Research Triangle Park, North Carolina, May 16-20, 2016.

[*C-211*] Madasseri Payyappall, V.‡, A. Behrendt, and J. Zhuang. "Modeling Fire Risk and Resource Allocation for Fire Protection and Safety" (poster), SAMSI-Games and Decisions in Reliability and Risk Workshop, Research Triangle Park, North Carolina, May 16-20, 2016.

[*C-210*] Wang, B.‡ and J. Zhuang. "Information Network Design and Optimization with Social Media in Disaster Management," IIE Annual Conference and Expo 2016, Anaheim, California, May 21-24, 2016.

[*C-209*] Zhang, J.‡, J. Zhuang, and B. Behlendorf. "Stochastic Shortest Path Network Interdiction Considering Partially Strategic Attacker," IIE Annual Conference and Expo 2016, Anaheim, California, May 21-24, 2016.

[*C-208*] Zhang, J.‡, J. Zhuang, and B. Behlendorf. "Stochastic Shortest Path Network Interdiction Considering Partially Strategic Attacker" (poster), IIE Annual Conference and Expo 2016, Anaheim, California, May 21-24, 2016.

[*C-207*] Pala, A.‡ and J. Zhuang. "Cybersecurity Information Sharing Strategies between Government and Private Companies," IIE Annual Conference and Expo 2016, Anaheim, California, May 21-24, 2016.

[*C-206*] Devine, L.‡, D. Seaberg‡, and J. Zhuang. "Government and Private Companies Cybersecurity Information Sharing Architecture," The SUNY Undergraduate Research Conference, Cobleskill, New York, April 15, 2016.

[*C-205*] Zhang, J.‡, J. Zhuang, and B. Behlendorf. "Risk preferences in network interdiction games," SRA Annual Meeting, Arlington, Virginia, December 6-10, 2015.

[*C-204*] Zhang, J.‡, V. Madasseri Payyappall, J. Zhuang, and V. Jose. "Modeling risk preferences in attacker-defender games," SRA Annual Meeting, Arlington, Virginia, December 6-10, 2015.

[*C-203*] Li, S‡, J. Zhuang, and S. Shen. "Time-series and intervention modeling of bombing attack threat," SRA Annual Meeting, Arlington, Virginia, December 6-10, 2015.

[*C-202*] Wang, B.‡ and J. Zhuang. "Information Network Design and Optimization with Social Media in Disaster Management" (poster), INFORMS Annual Meeting, Philadelphia, Pennsylvania, November 1-4, 2015.

[*C-201*] Pala, A.‡ and J. Zhuang. "Strategic Security Screening Queue with Abandonments," INFORMS Annual Meeting, Philadelphia, Pennsylvania, November 1-4, 2015.

[*C-200*] Zhang, J.‡ and J. Zhuang. "Stochastic Network Interdiction with Risk Preference," INFORMS Annual Meeting, Philadelphia, Pennsylvania, November 1-4, 2015.

[*C-199*] Madasseri Payyappall, V.‡, J. Zhuang, and V. Jose. "Deterence and Risk Preferences in A Sequential Attacker-defender Game with Continuous Defense Effort," INFORMS Annual Meeting, Philadelphia, Pennsylvania, November 1-4, 2015.

[*C-198*] Madasseri Payyappall, V.‡, P. Guan, and J. Zhuang. "Model Validation for a Public-private Partnerships Model in Disaster Management," INFORMS Annual Meeting, Philadelphia, Pennsylvania, November 1-4, 2015.

[*C-197*] Zhang, J.‡, J. Zhuang, and V. Jose. "Modeling A Multi-target Attacker-defender Resource Allocation Game Considering Risk Preferences," INFORMS Annual Meeting, Philadelphia, Pennsylvania, November 1-4, 2015.

[*C-196*] Mousapour, F.‡ and J. Zhuang. "A Literature Review of Recent Attacker-defender Games," INFORMS Annual Meeting, Philadelphia, Pennsylvania, November 1-4, 2015.

[*C-195*] He, F.‡ and J. Zhuang. "Coordinating Pre- and Post-disaster Resource Allocation at Multiple Locations," INFORMS Annual Meeting, Philadelphia, Pennsylvania, November 1-4, 2015.

[*C-194*] Li, S‡, J. Zhuang, and S. Shen. "Dynamic Modeling of Bombing Attack Threat Based on Time-series Process and Intervention Analysis," INFORMS Annual Meeting, Philadelphia, Pennsylvania, November 1-4, 2015.

[*C-193*] Zhuang, J.‡ "Validating Models of Adversary Behaviors," Advanced Development for Security Applications (ADSA) Workshop 13: Screening of Personnel and Divested Items at the Checkpoint–Part II, Boston, Massachusetts, October 28-29, 2015.

[*C-192*] Madasseri Payyappall, V.‡, J. Zhuang, and V. Jose. "Modeling Risk Preferences in a Sequential Attacker-Defender Game with Continuous Defense Effort" (poster), Second conference on Validating Models of Adversary Behavior, Buffalo/Niagara Falls, New York, August 2-5, 2015.

[*C-191*] Zhang, J.‡, J. Zhuang, and B. Behlendorf. "Defender-Attacker Network Interdiction Models for Defending Remote Border using Sensors and UAVs" (poster), Second conference on Validating Models of Adversary Behavior, Buffalo/Niagara Falls, New York, August 2-5, 2015.

[*C-190*] Pala, A.‡, and J. Zhuang. "Analyzing Human Behavior during Security Check Process: An Experimental Study" (poster), Second conference on Validating Models of Adversary Behavior, Buffalo/Niagara Falls, New York, August 2-5, 2015.

[*C-189*] Zhuang, J.‡ "Robust Approval Process in the Face of Strategic Adversaries and Normal Applicants," CREATE-TSA Symposium on Aviation Security, Los Angeles, California, July 20-21, 2015.

[*C-188*] Pala, A.‡ and J. Zhuang. "Analyzing Human Behavior during US Visa Process: An Experimental Study," ISERC Annual Meeting, Nashville, Tennessee, May 30 - June 2, 2015.

[*C-187*] Madasseri Payyappalli, V.‡ and J. Zhuang. "Modeling Risk-Preferences in a Sequential Attacker-Defender Game with Continuous Defense Effort," ISERC Annual Meeting, Nashville, Tennessee, May 30 - June 2, 2015.

[*C-186*] Zhuang, J.‡ "Validating Attacker-Defender Games using Experiments and Surveys," AAAI Spring Symposium 2015 on Applied Computational Game Theory, Palo Alto, California, March 23-25, 2015.

[*C-185*] Zhang, J.‡ and J. Zhuang. "Optimal Allocation of Defensive Resources in Countering Terrorism: Modeling and Validating," SRA Annual Meeting, Denver, Colorado, December 7-10, 2014.

[*C-184*] Wang, Y.‡ and J. Zhuang. "A Multiple-target Defensive Resource Allocation Game with Quantal-response Attacking Strategies," SRA Annual Meeting, Denver, Colorado, December 7-10, 2014.

[*C-183*] Li, S.‡, S. Shen, and J. Zhuang. "Defensive Resource Allocations of Assembly Occupancies System in a Sequential Defender-attacker Game," SRA Annual Meeting, Denver, CO, December 7-10, 2014.

[*C-182*] Guan, P. and J. Zhuang‡. "Public-private Partnerships in Disaster Management: Engaging with Multiple Private Sectors," INFORMS Annual Meeting, San Francisco, California, November 9-12, 2014.

[*C-181*] Diaz, C.‡, C. Song, and J. Zhuang. "Multi and Parallel Stage Screening Strategies in the Face of Strategic Applicants," INFORMS Annual Meeting, San Francisco, California, November 9-12, 2014.

[*C-180*] Zhang, J.‡ and J. Zhuang. "Optimal Allocation of Defensive Resources for Counter-Terrorism: Modeling and Validation," INFORMS Annual Meeting, San Francisco, California, November 9-12, 2014.

[*C-179*] Wang, Y.‡ and J. Zhuang. "A Multiple-Target Defensive Resource Allocation Game with Quantal-Response Attacking Strategies," INFORMS Annual Meeting, San Francisco, California, November 9-12, 2014.

[*C-178*] Li, S.‡, S. Shen, and J. Zhuang. "Defensive Resource Allocations of Assembly Occupancies System in a Sequential Defender-attacker Game," INFORMS Annual Meeting, San Francisco, California, November 9-12, 2014.

[*C-177*] Zhuang, J.‡, J. Zhang, and V. M. Bier, "Validating Models of Adversary Behavior," Quick Fire Research Briefings, START 2014 Annual Meeting, Bethesda, Maryland, September 18-19, 2014.

[*C-176*] Zhuang, J.‡. "Big Data and Disaster Management," International Conference of Management Science and Engineering Driven by Big Data, Nanjing University, Nanjing, China, July 8-9, 2014.

[*C-175*] Zhang, J.‡ and J. Zhuang. "Modeling and Validating Multi-period, Multi-type, and Multi-target Attacker-defender Games," Advances in Decision Analysis Conference, Georgetown University, Washington DC, June 16-18, 2014.

[*C-174*] Song, C.‡ and J. Zhuang. "Two-Stage Security Screening Strategies in the Face of Strategic Applicants, Congestions and Screening Errors," Advances in Decision Analysis Conference, Georgetown University, Washington DC, June 16-18, 2014.

[*C-173*] Guan, P. and J. Zhuang‡. "Modeling Public-private Partnerships in Disaster Management—A Sequential Game with Prospect Utility," Advances in Decision Analysis Conference, Georgetown University, Washington DC, June 16-18, 2014.

[*C-172*] Zhang, J.‡ and J. Zhuang. "Modeling and Validating Multi-period, Multi-type, and Multi-target Attacker-defender Games," poster exhibit, CREATE 10 Year Anniversary Event, University of Southern California, Los Angeles, California, April 24, 2014.

[*C-171*] Guan, P.‡ and J. Zhuang. "Public and Private Partnerships in Disaster Management," poster exhibit, CREATE 10 Year Anniversary Event, University of Southern California, Los Angeles, California, April 24, 2014.

[*C-170*] Guan, P.‡, J. Zhang‡ and J. Zhuang. "Visualizing Game-theoretical Attacker-defender Resource Allocation Games with Risk Preferences," research demo, CREATE 10 Year Anniversary Event, University of Southern California, Los Angeles, California, April 24, 2014.

[*C-169*] Tambe, M.‡, C. Kiekintveld‡, J. Zhuang‡, and D. Boyd‡. "Risk Analysis Panel II, Game Theory and Security," CREATE Pre-Anniversary All-Hands Meeting, University of Southern California, Los Angeles, California, April 23, 2014.

[*C-168*] Coviello, L.‡, J. Zhang and J. Zhuang. "Terrorist Attacks in Relation to the Top 10 Tourist Countries" (poster), University at Buffalo Celebration of Academic Excellence, Buffalo, New York, April 23, 2014.

[*C-167*] Balzani, J.‡ and J. Zhuang. "Analysis and Modeling of Patient Flow Through Emergency Departments" (poster), University at Buffalo Celebration of Academic Excellence, Buffalo, New York, April 23, 2014.

[*C-166*] Brondum, M.‡, T. Darlington‡, J. Coles and J. Zhuang. "The Search For a New Waffle House Index: A Case Study in Business Operation After Hurricane Sandy" (poster), University at Buffalo Celebration of Academic Excellence, Buffalo, New York, April 23, 2014.

[*C-165*] Coles, J., J. Zhang‡ and J. Zhuang. "Model Validation in Disaster Relief: Partner Selection and Maintenance," poster, Planning for Disaster Resilience Symposium, Texas A&M University, College Station, Texas, April 5, 2014.

[*C-164*] Guan, P.‡ and J. Zhuang. "Public and Private Partnerships in Disaster Management," poster, Planning for Disaster Resilience Symposium, Texas A&M University, College Station, Texas, April 5, 2014.

[*C-163*] Zhuang, J.‡ "Game Theory and Disaster Management," invited talk, AAAI Spring Symposium 2014 on Applied Computational Game Theory, Palo Alto, California, March 24-26, 2014.

[*C-162*] Brondum, M.‡, T. Darlington‡, J. Coles and J. Zhuang. "The Search For a New Waffle House Index: A Case Study in Business Operation After Hurricane Sandy," Institute of Industrial Engineers Northeast Regional Conference, Worcester Polytechnic Institute, Worcester, Massachusetts, March 21-23, 2014.

[*C-161*] Brondum, M.‡, T. Darlington‡, J. Coles and J. Zhuang. "The Search For a New Waffle House Index: A Case Study in Business Operation After Hurricane Sandy," Institute of Industrial Engineers Canadian Regional Conference, Ryerson University, Toronto, Ontario, January 23-25, 2014.

[*C-160*] Guan, P.‡ and J. Zhuang. "Modeling Public-private Partnerships in Disaster Management– A Sequential Game with Prospect Utilities," SRA Annual Meeting, Baltimore, Maryland, December 8-11, 2013.

- 2013 Student Merit Award, SRA' Security and Defense Specialty Group

[*C-159*] Zhang, J.‡ and J. Zhuang. "Modeling and Validating Multi-period, Multi-type, and Multi-target Attacker-defender Games," SRA Annual Meeting, Baltimore, Maryland, December 8-11, 2013.

[*C-158*] Jose, V.‡ and J. Zhuang. "Beyond Risk-Neutrality in Attacker-Defender Games: Expected Utility and Cumulative Prospect Theories," SRA Annual Meeting, Baltimore, Maryland, December 8-11, 2013.

[*C-157*] Coles, J.‡ and J. Zhuang. "Ideal Disaster Relief?: Using the IFRC Code of Conduct in Model Development," SRA Annual Meeting, Baltimore, Maryland, December 8-11, 2013.

[*C-156*] Xu, J., C. Song, and J. Zhuang‡. "Robust Screening Policy–Balancing Congestion and Security in the Presence of Strategic Applicants with Private Information," SRA Annual Meeting, Baltimore, Maryland, December 8-11, 2013.

[*C-155*] Guan, P.‡, X. Shan, F. He and J. Zhuang. "Incentives in Government Provision of Emergency Preparedness and Disaster Relief" (poster), SRA Annual Meeting, Baltimore, Maryland, December 8-11, 2013.

[*C-154*] Zhang, J.‡ and J. Zhuang. "Modeling and Validating Multi-period, Multi-type, and Multi-target Attacker-defender Games" (poster), SRA Annual Meeting, Baltimore, Maryland, December 8-11, 2013.

[*C-153*] Zhuang, J., X. Wang‡, C. Song, and J. Xu. "Robust Approval Process in the Face of Strategic Adversaries and Normal Applicants" (poster), SRA Annual Meeting, Baltimore, Maryland, December 8-11, 2013.

[*C-152*] Zhuang, J., V. Bier, and J. Zhang‡. "First Conference on Validating Models of Adversary Behavior" (poster), SRA Annual Meeting, Baltimore, Maryland, December 8-11, 2013.

[*C-151*] Zhuang, J., J. Fu‡, and V. Jose. "Modeling Attacker-defender Games with Risk Preferences" (poster), SRA Annual Meeting, Baltimore, Maryland, December 8-11, 2013.

[*C-150*] Coles, J.‡ and J. Zhuang. "Model Validation in Disaster Relief Partner Selection and Maintenance" (poster), SRA Annual Meeting, Baltimore, Maryland, December 8-11, 2013.

[*C-149*] Guan, P.‡, S. Hora, and J. Zhuang. "Attacker-defender Games with Partially-concave-partially-convex (PC^2) Contest Success Functions," INFORMS Annual Meeting, Minneapolis, Minnesota, October 6-9, 2013.

[*C-148*] Jose, V.‡ and J. Zhuang. "Beyond Risk-neutrality in Attacker-defender Games," INFORMS Annual Meeting, Minneapolis, Minnesota, October 6-9, 2013.

[*C-147*] Zhang, J.‡ and J. Zhuang. "Modeling and Validating Multi-period, Multi-type, and Multi-target Attacker-defender Games," INFORMS Annual Meeting, Minneapolis, Minnesota, October 6-9, 2013.

[*C-146*] Coles, J.‡ and J. Zhuang. "Ideal Disaster Relief: Using the IFRC Code of Conduct in Model Development," INFORMS Annual Meeting, Minneapolis, Minnesota, October 6-9, 2013.

[*C-145*] Guan, P.‡ and J. Zhuang. "Modeling Public-private Partnerships in Disaster Management- A Sequential Game with Prospect Utility," INFORMS Annual Meeting, Minneapolis, Minnesota, October 6-9, 2013.

[*C-144*] Song, C.‡, X. Wang‡, J. Xu, and J. Zhuang. "Robust Multi-stage Screening Strategies in the Face of Strategic Applicants," INFORMS Annual Meeting, Minneapolis, Minnesota, October 6-9, 2013.

[*C-143*] Nikolaeva, A.‡, R. Batta, and J. Zhuang. "Locating Vulnerable Temporary Depots Prior to a Natural Disaster," INFORMS Annual Meeting, Minneapolis, Minnesota, October 6-9, 2013.

[*C-142*] Coles, J.‡ and J. Zhuang. "Characteristics and Modeling of Organizational Networks: A Disaster Operations Case Study in the US," INFORMS Annual Meeting, Minneapolis, Minnesota, October 6-9, 2013.

[*C-141*] Darlington, T.‡, M. Brondum‡, J. Coles and J. Zhuang. "The Search for a New Waffle House Principle- A Case Study in Business Operation after Hurricane Sandy," INFORMS Annual Meeting, Minneapolis, Minnesota, October 6-9, 2013.

[*C-140*] Zhuang, J.‡ "Mentoring High School, Undergraduate & Graduate Students - Lessons Learned by an Assistant Professor," INFORMS Annual Meeting, Minneapolis, Minnesota, October 6-9, 2013.

[*C-139*] He, F., J. Zhuang, N. Rao ‡, C. Ma, and D. K. Y. Yau. "Game-Theoretic Resilience Analysis of Cyber-Physical Systems," First IEEE International Conference on Cyber-Physical Systems, Networks, and Applications (CPSNA 2013), Taipei, Taiwan, August 19-20, 2013.

[*C-138*] Rao, N.‡, S. Poole, C. Ma, F. He, J. Zhuang, and D. Yau. "Infrastructure Resilience Using Cyber-Physical Game-Theoretic Approach," First IEEE International Symposium on Resilient Cyber Systems (ISRCS13), San Francisco, California, August 13-15, 2013.

[*C-137*] Rao, N.‡, S. Poole, C. Ma, F. He, J. Zhuang, and D. Yau. "Cyber and Physical Information Fusion for Infrastructure Protection: A Game-Theoretic Approach," The 16th International Conference on Information FUSION (FUSION 2013), Istanbul, Turkey, July 9-12, 2013.

[*C-136*] Nikolaeva, A.‡, R. Batta, and J. Zhuang. "Locating Vulnerable Temporary Depots Prior to a Natural Disaster," 26th European Conference on Operations Research, Rome, Italy, July 1-4, 2013.

[*C-135*] Niyirora, J.‡ and J. Zhuang. "A Kinetics Model of an Emergency Room with Queuing Inference and Optimal Control," INFORMS Healthcare Conference, Chicago, Illinois, June 23-26, 2013.

[*C-134*] Jose, V.‡, and J. Zhuang. "Why Go Beyond Risk Neutrality in Attacker-Defender Games?," First conference on Validating Models of Adversary Behavior, Buffalo/Niagara Falls, New York, June 23-26, 2013.

[*C-133*] Rao, N.‡, S. Poole, C. Ma, F. He, J. Zhuang, and D. Yau. "Game-Theoretic Approach to Cyber-Physical Infrastructures: Discrete Models and Ultra Science Net Case Study," First conference on Validating Models of Adversary Behavior, Buffalo/Niagara Falls, New York, June 23-26, 2013.

[*C-132*] Coles, J.‡, and J. Zhuang. "Model Validation in Disaster Relief Partner Selection and Maintenance" (poster), First conference on Validating Models of Adversary Behavior, Buffalo/Niagara Falls, New York, June 23-26, 2013.

- 2013 Student Poster Competition Award

[*C-131*] Madejski, G.‡, J. Zhuang, and N. Rao. "A Game-Theoretic approach to Attacks and Defenses of Smart Grids" (poster), First conference on Validating Models of Adversary Behavior, Buffalo/Niagara Falls, New York, June 23-26, 2013.

[*C-130*] Xu, J.‡, C. Song‡, and J. Zhuang. "Robust Approval Process in the Face of Strategic Adversaries and Normal Applicants" (poster), First conference on Validating Models of Adversary Behavior, Buffalo/Niagara Falls, New York, June 23-26, 2013.

[*C-129*] Guan, P.‡ and J. Zhuang. "Public and Private Partnerships Games in Disaster Management" (poster), 2013 Industrial and Systems Engineering Research Conference, San Juan, Puerto Rico, May 18-22, 2013.

[*C-128*] Coles, J.‡ and J. Zhuang. "Optimal Disaster Relief?: Using the IFRC Code of Conduct to Guide Research," 2013 Industrial and Systems Engineering Research Conference, San Juan, Puerto Rico, May 18-22, 2013.

[*C-127*] Catalano, M., E. Newell‡, J. Coles‡ and J. Zhuang. "Screening Simulation for Balancing Congestion and Security," 2013 Industrial and Systems Engineering Research Conference, San Juan, Puerto Rico, May 18-22, 2013.

[*C-126*] Coles, J.‡ and J. Zhuang. "Interagency Partnership Selection: Disaster Relief Partnership as A Two-stage Game," SRA Annual Meeting, San Francisco, California, December 9-12, 2012.

[*C-125*] Shan, X.‡ and J. Zhuang. "Multi-period Defensive Resource Allocation Considering Equity and Possibly Non-strategic Attackers" (poster), SRA Annual Meeting, San Francisco, California, December 9-12, 2012.

[*C-124*] Catalano, M.‡, E. Newell, J. Coles, and J. Zhuang. "Screening Simulation for Balancing Congestion and Security and Facing Strategic Applicants," SRA Annual Meeting, San Francisco, California, December 9-12, 2012.

[*C-123*] Cheung, M. and J. Zhuang‡. "Regulation Games Between Government and Competing Companies: Oil Spills and Other Disasters," INFORMS Annual Meeting, Phoenix, Arizona, October 14-17, 2012.

[*C-122*] Catalano, M.‡, E. Newell‡, J. Coles, and J. Zhuang. "US Visa Applicant Wait Time Analysis," INFORMS Annual Meeting, Phoenix, Arizona, October 14-17, 2012.

[*C-121*] Xu, J.‡ and J. Zhuang. "Robust Optimization Considering the Applicants Behavior," INFORMS Annual Meeting, Phoenix, Arizona, October 14-17, 2012.

[*C-120*] Song, C.‡ and J. Zhuang. "Multiple-stage Screening Game in the Face of Strategic Applicants," INFORMS Annual Meeting, Phoenix, Arizona, October 14-17, 2012.

[*C-119*] Coles, J.‡ and J. Zhuang. "Multi-criteria Decision Analysis and Game Theory: Perspective on Terrorist Archetypes," INFORMS Annual Meeting, Phoenix, Arizona, October 14-17, 2012.

[*C-118*] Coles, J.‡ and J. Zhuang. "Modeling the Dynamics of Agency-agency Partnerships Before and Following Extreme Events," INFORMS Annual Meeting, Phoenix, Arizona, October 14-17, 2012.

[*C-117*] He, F.‡, J. Zhuang, and N. Rao. "Game-theoretic Analysis of Attack and Defense in Coupled Cyber-physical Network Infrastructures," INFORMS Annual Meeting, Phoenix, Arizona, October 14-17, 2012.

[*C-116*] Shan, X.‡ and J. Zhuang. "Cost of Equity in Defensive Resource Allocations in the Face of a Strategic Attacker," INFORMS Annual Meeting, Phoenix, Arizona, October 14-17, 2012.

[*C-115*] Shan, X.‡ and J. Zhuang. "Cumulative Defensive Resource Allocation Among Multiple Targets in the Face of a Strategic Attacker," INFORMS Annual Meeting, Phoenix, Arizona, October 14-17, 2012.

[*C-114*] Nikoofal, M.‡ and J. Zhuang. "On the Robustness of Secrecy and Exposure of Defense System in Defender-attacker Games," INFORMS Annual Meeting, Phoenix, Arizona, October 14-17, 2012.

[*C-113*] Guan, P.‡, J. Zhuang, and S. Hora. "A Model of Terrorism and Counter Terrorism Expenditure," INFORMS Annual Meeting, Phoenix, Arizona, October 14-17, 2012.

[*C-112*] Shan, X.‡ and J. Zhuang. "Cost of Equity in Defensive Resource Allocations in the Face of a Possibly Non-strategic Attacker" (poster), INFORMS Annual Meeting, Phoenix, Arizona, October 14-17, 2012.

[*C-111*] Zhuang, J.‡, J. Coles, P. Guan, F. He, and X. Shan. "Strategic Interactions in Disaster Preparedness and Relief in the Face of Man-Made and Natural Disasters," International Research Committee on Disasters Researchers Meeting, Broomfield, Colorado, July 17-18, 2012.

[*C-110*] Coles, J.‡ and J. Zhuang. "Modeling the Dynamics of Agency-agency Partnerships before and following Extreme Events," International Research Committee on Disasters Researchers Meeting, Broomfield, Colorado, July 17-18, 2012.

[*C-109*] Zhuang, J.‡, J. Coles, P. Guan, F. He, and X. Shan. "Strategic Interactions in Disaster Preparedness and Relief in the Face of Man-Made and Natural Disasters" (poster), 37th Annual Natural Hazards Research and Applications Workshop, Broomfield, Colorado, July 14-17, 2012.

[*C-108*] Coles, J.‡ and J. Zhuang. "Modeling the Dynamics of Agency-agency Partnerships before and following Extreme Events" (poster), 37th Annual Natural Hazards Research and Applications Workshop, Broomfield, Colorado, July 14-17, 2012.

[*C-107*] Guan, P.‡ and J. Zhuang. "Hazard Prevention by Public and Private Partnership" (poster), NSF CMMI Engineering Research and Innovation Conference, Boston, Massachusetts, July 9-12, 2012.

[*C-106*] Zhuang, J.‡. "Analytical and Behavioral Research on Strategic Interactions in the Face of Man-Made and Natural Disasters," Young Scholar's Workshop, 7th Annual Conference Behavioral Research in Operations Management, Washington, DC, June 9-11, 2012.

[*C-105*] Shan, X.‡ and J. Zhuang. "Hybrid Defense Resource Allocations in the face of Partially Strategic Attacker, and Comparison with Fully Endogenous and Exogenous Models" (poster), The Behavior and Brain Sciences Symposium, University at Buffalo, Buffalo, NY, June 1, 2012.

[*C-104*] Saxton, G.‡ and J. Zhuang. "A Game-Theoretic Model of Disclosure-Donation Interactions in the Market for Charitable Contributions" (acceptance rate$\sim=$ 48%), International Communication Association Annual Conference, Phoenix, Arizona, May 24-28.

[*C-103*] Shan, X.‡ and J. Zhuang. "Cost of Equity in Defensive Resource Allocations in the Face of a Possibly Non-strategic Attacker" (poster), 2012 Industrial and Systems Engineering Research Conference, Orlando, Florida, May 19-23, 2012.

[*C-102*] Coles, J.‡ and J. Zhuang. "Modeling the Dynamics of Agency-agency Partnerships before and following Extreme Events" (poster), 2012 Industrial and Systems Engineering Research Conference, Orlando, Florida, May 19-23, 2012.

[*C-101*] Hsu, W., E. Newell, J. Zhuang‡, and D. Ross. "Heuristics, Optimization, and Equilibrium Analysis for Automated Wargames," 2012 Industrial and Systems Engineering Research Conference, Orlando, Florida, May 19-23, 2012.

[*C-100*] He, F., J. Zhuang‡, and N. Rao. "Game-Theoretic Analysis of Attack and Defense in Cyber-Physical Network Infrastructures," 2012 Industrial and Systems Engineering Research Conference, Orlando, Florida, May 19-23, 2012.

[*C-99*] Shan, X.‡ and J. Zhuang. "Cumulative Defensive Resource Allocation— Dynamic Programming Approach," 2012 Industrial and Systems Engineering Research Conference, Orlando, Florida, May 19-23, 2012.

[*C-98*] Shan, X.‡ and J. Zhuang. "Subsidizing to Disrupt a Terrorism Supply Chain — A Four-player Game," 2012 Industrial and Systems Engineering Research Conference, Orlando, Florida, May 19-23, 2012.

[*C-97*] Coles, J.‡ and J. Zhuang. "Partnership Optimization Decision Support System: Improving Partnerships in Disaster Relief," 2012 Industrial and Systems Engineering Research Conference, Orlando, Florida, May 19-23, 2012.

[*C-96*] Coles, J.‡ and J. Zhuang. "Improving Partnership Selection after Disasters: Game Theory and Resource Allocation," 2012 Industrial and Systems Engineering Research Conference, Orlando, Florida, May 19-23, 2012.

[*C-95*] Zhuang, J.‡, J. Coles, P. Guan, F. He, and X. Shan. "Strategic Interactions in Disaster Preparedness and Relief in the Face of Man-Made and Natural Disasters" (poster), 9th International Conference on Information Systems for Crisis Response and Management, Vancouver, Canada, April 22-25, 2012.

[*C-94*] Coles, J.‡ and J. Zhuang. "Modeling the Dynamics of Agency-agency Partnerships before and following Extreme Events" (poster), 9th International Conference on Information Systems for Crisis Response and Management, Vancouver, Canada, April 22-25, 2012.

[*C-93*] Coles, J.‡ and J. Zhuang. "Agency Decision Making in a Network: Models and Heuristics to Improve Disaster Relief Efforts" (poster), University at Buffalo Sigma Xi Research Day and Poster Competition, Buffalo, New York, April 5, 2012.

[*C-92*] He, F.‡ and J. Zhuang. "Balancing Pre-disaster Preparedness and Post-disaster Relief—A Two-stage Dynamic Model" (poster), University at Buffalo Sigma Xi Research Day and Poster Competition, Buffalo, New York, April 5, 2012.

[*C-91*] Shan, X.‡ and J. Zhuang. "Subsidizing to Disrupt a Terrorism Supply Chain—A Four Player Game" (poster), University at Buffalo Sigma Xi Research Day and Poster Competition, Buffalo, New York, April 5, 2012.

[*C-90*] Duquesnay, J.‡ and J. Zhuang. "Social Media and Disaster Preparedness" (poster), University at Buffalo Celebration of Academic Excellence, Buffalo, New York, April 5, 2012.

[*C-89*] Newell, E.‡ and J. Zhuang. "Game Theoretic Application to Disaster Preparation and Mitigation: Hurricane Case Study" (poster), University at Buffalo Celebration of Academic Excellence, Buffalo, New York, April 5, 2012.

[*C-88*] Duquesnay, J.‡ and J. Zhuang. "Social Media and Disaster Preparedness" (poster), Technical Research Exhibition at the National Society of Black Engineers (NSBE) 2012 Annual Convention, Pittsburgh, Pennsylvania, March 28th - April 1st, 2012.

- Undergraduate Research Award, UB CURCA, 2/2012

[*C-87*] Rao, N.‡, S. Poole, C. Ma, F. He, J. Zhuang, and D. Yau. "Cloud Computing Infrastructure Robustness: A Game Theory Approach," International Conference on Computing, Networking and Communications, Maui, Hawaii, January 30 - February 2, 2012.

[*C-86*] Shan, X.‡ and J. Zhuang. "Cost of Equity in Defensive Resource Allocations in the Face of a Possibly Non-strategic Attacker," SRA Annual Meeting, Charleston, South Carolina, December 4-7, 2011.

[*C-85*] He, F., J. Zhuang‡, and N. Rao. "Attacker-Defender Games in Cyber-Physical Networks," SRA Annual Meeting, Charleston, South Carolina, December 4-7, 2011.

[*C-84*] Coles, J.‡ and J. Zhuang. "Partnership Optimization Decision Support System (PODSS): Improving Partnership Development and Resource Allocation in Disaster Recovery Operations using Game Theory," SRA Annual Meeting, Charleston, South Carolina, December 4-7, 2011.

[*C-83*] Hartz, R., J. Coles‡, J. Keisler, J. Zhuang, and I. Linkov. "The Value of Knowledge-Based Decisions: Improving Terrorism Defense by Integrating Multi-Criteria Decision Analysis, Game Theory, and the Value of Information," SRA Annual Meeting, Charleston, South Carolina, December 4-7, 2011.

[*C-82*] Shan, X.‡ and J. Zhuang. "Subsidizing to Disrupt a Terrorism Supply Chain—A Four-player Game" (poster), SRA Annual Meeting, Charleston, South Carolina, December 4-7, 2011.

[*C-81*] Shan, X.‡ and J. Zhuang. "Cost of Equity in Defensive Resource Allocations in the Face of a Possibly Non-strategic Attacker," Decision Sciences Institute Annual Meeting, Boston, Massachusetts, November 19-22, 2011.

[*C-80*] Coles, J.‡ and J. Zhuang. "Decisions in Disaster Recovery Operations: A Game Theoretic Perspective on Organization Cooperation" (poster), INFORMS Annual Meeting, Charlotte, North Carolina, November 13-16, 2011.

[*C-79*] He, F.‡ and J. Zhuang. "Decision Making on Pre-disaster Preparedness and Post-disaster Relief" (poster), INFORMS Annual Meeting, Charlotte, North Carolina, November 13-16, 2011.

[*C-78*] Shan, X.‡ and J. Zhuang. "Cost of Equity in Defensive Resource Allocations in the Face of a Possibly Non-strategic Attacker" (poster), INFORMS Annual Meeting, Charlotte, North Carolina, November 13-16, 2011.

[*C-77*] Nikoofal, M.‡ and J. Zhuang=. "Robustness of Cyber-Physical Network Infrastructures: A Game Theoretic Approach," INFORMS Annual Meeting, Charlotte, North Carolina, November 13-16, 2011.

[*C-76*] Shan, X.‡ and J. Zhuang. "Subsidizing to Disrupt a Terrorism Supply Chain—A Four Player Game," INFORMS Annual Meeting, Charlotte, North Carolina, November 13-16, 2011.

[*C-75*] Xu, J.‡, Z. Liu, and J. Zhuang=. "Modeling and Mitigating the Effects of Supply Chain Disruption on Wargames," INFORMS Annual Meeting, Charlotte, North Carolina, November 13-16, 2011.

[*C-74*] Coles, J.‡ and J. Zhuang. "Improving Partnership Selection in Disaster Relief Environments: Game Theory and Resource Allocation," INFORMS Annual Meeting, Charlotte, North Carolina, November 13-16, 2011.

[*C-73*] He, F.‡, J. Zhuang, and N. Rao. "Game-Theoretic Analysis of Attack and Defense in Cyber-Physical Networks," INFORMS Annual Meeting, Charlotte, North Carolina, November 13-16, 2011.

[*C-72*] Xu, J.‡ and J. Zhuang. "Costly Learning and Counter-learning in an Attacker-defender Game with Incomplete Information," INFORMS Annual Meeting, Charlotte, North Carolina, November 13-16, 2011.

[*C-71*] Song, C.‡ and J. Zhuang. "Game Theoretical Models for Food Supply Chain Risk Management," INFORMS Annual Meeting, Charlotte, North Carolina, November 13-16, 2011.

[*C-70*] Shan, X.‡ and J. Zhuang. "Equity vs. Efficiency? A Dilemma in Defensive Resource Allocations against a Strategic Attacker," INFORMS Annual Meeting, Charlotte, North Carolina, November 13-16, 2011.

[*C-69*] He, F.‡ and J. Zhuang. "Balancing Pre-disaster Preparedness and Post-disaster Relief," INFORMS Annual Meeting, Charlotte, North Carolina, November 13-16, 2011.

[*C-68*] Guan, P.‡ and J. Zhuang. "Hazard Prevention by Public and Private Partnership," INFORMS Annual Meeting, Charlotte, North Carolina, November 13-16, 2011.

[*C-67*] Rao, N.‡, D. Yau, C. Ma, J. Zhuang, and F. He. "Robustness of Cyber-Physical Network Infrastructures: A Game Theoretic Approach" (poster), 2011 Department of Energy Applied Mathematics Program Meeting, Washington, DC, October 17-19, 2011.

[*C-66*] Zhuang, J.‡, J. Coles, P. Guan, F. He, and X. Shan. "Strategic Interactions in Disaster Preparedness and Relief in the Face of Man-Made and Natural Disasters" (poster), 36th Annual Natural Hazards Research and Applications Workshop, Broomfield, Colorado, July 9-12, 2011.

[*C-65*] Zhuang, J.‡ "Game Theory and Decision Making in Disaster Preparedness, Response, and Recovery" (invited talk), Workshop of Probabilistic Analysis of Volcanic Hazards, Buffalo, New York, May 16-19, 2011.

[*C-64*] Shan, X.‡ and J. Zhuang. "Cost of Equity in Defensive Resource Allocations in the Face of a Possibly Nonstrategic Attacker" (poster), Second New York Conference on Applied Mathematics, Buffalo, New York, April 30, 2011.

[*C-63*] Guan, P.‡ and J. Zhuang. "Hazard Prevention by Public and Private Partnership" (poster), Second New York Conference on Applied Mathematics, Buffalo, New York, April 30, 2011.

[*C-62*] He, F.‡ and J. Zhuang. "Balancing Pre-disaster Preparedness and Post-disaster Relief" (poster), Second New York Conference on Applied Mathematics, Buffalo, New York, April 30, 2011.

[*C-61*] Cheung, M.‡ and J. Zhuang. "Oil Spills: Games Between Government and Competing Companies" (poster), Second New York Conference on Applied Mathematics, Buffalo, New York, April 30, 2011.

[*C-60*] Coles, J.‡ and J. Zhuang. "Decisions in Disaster Recovery Operations: A Game Theory Perspective on Actor Cooperation" (poster), Second New York Conference on Applied Mathematics, Buffalo, New York, April 30, 2011.

[*C-59*] Zhuang, J.‡ "Applied Mathematics, Game Theory, and Disasters" (invited talk), Second New York Conference on Applied Mathematics, Buffalo, New York, April 30, 2011.

[*C-58*] Shan, X.‡ and J. Zhuang. "Cost of Equity in Defensive Resource Allocations in the Face of a Possibly Nonstrategic Attacker" (poster), University at Buffalo's Information and Computing Technology (ICT) Workshop, Buffalo, New York, April 22, 2011.

[*C-57*] Cheung, M.‡ and J. Zhuang. "Oil Spills: Games Between Government and Competing Companies" (poster), University at Buffalo Celebration of Academic Excellence, Buffalo, New York, April 6, 2011.

[*C-56*] Coles, J.‡ and J. Zhuang. "Decisions in Disaster Recovery Operations: A Game Theory Perspective on Actor Cooperation" (poster), University at Buffalo Sigma Xi Research Day and Poster Competition, Buffalo, New York, April 6, 2011.

[*C-55*] Shan, X.‡ and J. Zhuang. "Cost of Equity in Defensive Resource Allocations in the Face of a Possibly Nonstrategic Attacker" (poster), University at Buffalo Sigma Xi Research Day and Poster Competition, Buffalo, York, April 6, 2011.

[*C-54*] Coles, J.‡ and J. Zhuang. "Actor-Actor Partnerships in Emergency Recovery Operations: A case-study in humanitarian logistics following the 2010 Haitian earthquake" (poster, acceptance rate∼= 20%), Fifth Annual U.S. Department of Homeland Security University Network Summit, Washington, DC, March 28 - April 1, 2011.

[*C-53*] Shan, X.‡ and J. Zhuang. "Cost of Equity in Homeland Security Resource Allocation in the Face of Possible Non-strategic Attackers" (poster, acceptance rate∼= 20%), Fifth Annual U.S. Department of Homeland Security University Network Summit, Washington, DC, March 28 - April 1, 2011.

[*C-52*] Zhuang, J.‡ and E. A. Newell. "Technology Evolutionary Games in Complex Transportation Systems in the Face of Adaptive Adversaries" (invited panelist presentation), Fifth Annual U.S. Department of Homeland Security University Network Summit, Washington, DC, March 28 - April 1, 2011.

[*C-51*] Coles, J.‡ and J. Zhuang‡. "Decisions in Disaster Recovery Operations: A Game Theory Perspective on Actor Cooperation, Communication, and Resource Utilization" (poster), 2011 Conference on Health and Humanitarian Logistics, Atlanta, Georgia, March 3-4, 2011.

[*C-50*] Shan, X. and J. Zhuang‡. "Cost of Equity in Homeland Security Resource Allocation in the Face of Possible Non-strategic Attackers," INFORMS Computing Society Conference, Monterey, California, January 9-11, 2011.

[*C-49*] Wang, X. and J. Zhuang‡=. "Balancing Congestion and Security in the Presence of Strategic Applicants with Private Information," INFORMS Computing Society Conference, Monterey, California, January 9-11, 2011.

[*C-48*] Coles, J.‡, J. Yates and J. Zhuang‡=. "Measuring Partnership Efficacy in Haitian Disaster Recovery" (poster), 2011 NSF Engineering Research and Innovation Conference, Atlanta, Georgia, January 4-7, 2011.

[*C-47*] Coles, J.‡ and J. Zhuang‡. "Decisions in Disaster Recovery Operations: A Game Theory Perspective on Actor Cooperation, Communication, and Resource Utilization" (poster), SRA Annual Meeting, Salt Lake City, Utah, December 5-8, 2010.

[*C-46*] Shan, X.‡ and J. Zhuang‡. "Cost of Equity in Homeland Security Resource Allocation in the Face of Possible Non-strategic Attackers" (poster) SRA Annual Meeting, Salt Lake City, Utah, December 5-8, 2010.

[*C-45*] Jin, S.‡, Z. Liu, and J. Zhuang=. "Monte Carlo Simulation-Based Supply Chain Disruption Management for Wargames," 2010 Winter Simulation Conference, Baltimore, Maryland, December 5-8, 2010.

[*C-44*] Xiang, Y. and J. Zhuang‡ "Medical Resource Allocation in the Aftermath of a Natural Disaster," INFORMS Annual Meeting, Austin, Texas, November 7-10, 2010.

[*C-43*] Golalikhani, M. and J. Zhuang‡ "Modeling Arbitrary Layers of Continuous Level Defenses in Facing with A Strategic Attacker," INFORMS Annual Meeting, Austin, Texas, November 7-10, 2010.

[*C-42*] Coles, J.‡, J. Yates, and J. Zhuang=. "Measuring Partnership Efficacy in Haitian Disaster Recovery" (poster), INFORMS Annual Meeting, Austin, Texas, November 7-10, 2010.

[*C-41*] Coles, J.[‡], J. Yates, and J. Zhuang[=]. "Key Dynamics for Sustainable Partnerships in Haitian Disaster Recovery," INFORMS Annual Meeting, Austin, Texas, November 7-10, 2010.

[*C-40*] Jin, S.[‡], Z. Liu, and J. Zhuang[=]. "Monte Carlo Simulation-Based Supply Chain Disruption Management for Wargames," INFORMS Annual Meeting, Austin, Texas, November 7-10, 2010.

[*C-39*] Jin, S.[‡], Z. Liu, and J. Zhuang[=]. "Modeling and Mitigating the Effects of Supply Chain Disruption on Wargames" (poster), INFORMS Annual Meeting, Austin, Texas, November 7-10, 2010.

[*C-38*] Ndayishimiye, J.[‡] and J. Zhuang "Differential Equations Modeling of Patients Dynamics in Emergency Rooms: Issues and Optimal Control Staffing Policies," INFORMS Annual Meeting, Austin, Texas, November 7-10, 2010.

[*C-37*] Ndayishimiye, J.[‡] and J. Zhuang "Differential Equations Modeling of Patients Dynamics in Emergency Rooms" (poster), INFORMS Annual Meeting, Austin, Texas, November 7-10, 2010.

[*C-36*] Shan, X. and J. Zhuang[‡] "Game Theory or Not Game Theory?—Robustness of Hybrid Defense Resource Allocations," INFORMS Annual Meeting, Austin, Texas, November 7-10, 2010.

[*C-35*] Shan, X.[‡] and J. Zhuang "Hybrid Defense Resource Allocations in the face of Partially Strategic Attacker, and Comparison with Fully Endogenous and Exogenous Models" (poster), INFORMS Annual Meeting, Austin, Texas, November 7-10, 2010.

[*C-34*] Wang, X. and J. Zhuang[‡=]. "Balancing Congestion and Security in the Presence of Strategic Applicants with Private Information," INFORMS Annual Meeting, Austin, Texas, November 7-10, 2010.

[*C-33*] Zhang, P., Q. Wang and J. Zhuang[‡] "Congestion Pricing under Travel Time Uncertainty: A Game Theory Perspective," INFORMS Annual Meeting, Austin, Texas, November 7-10, 2010.

[*C-32*] Coles, J., J. Yates, and J. Zhuang[‡=]. "Measuring Partnership Efficacy in Haitian Disaster Recovery" (presentation and poster), NSF Haiti RAPID and Research Workshop, Arlington, VA, September 30-October 1, 2010.

[*C-31*] Shan, X. and J. Zhuang[‡] "Game Theory or Not Game Theory?—Robustness of Hybrid Defense Resource Allocations," Operations Research for the Public Interest Conference, Stanford University, Stanford, California, June 17-18, 2010.

[*C-30*] Shan, X. and J. Zhuang[‡] "Game Theory or Not Game Theory?—Robust Defense Resource Allocations," IIE Annual Conference and Expo 2010, Cancun, Mexico, June 5-9, 2010.

[*C-29*] Shan, X. and J. Zhuang[‡] "Subsidizing to Disrupt a Terrorism Supply Chain," IIE Annual Conference and Expo 2010, Cancun, Mexico, June 5-9, 2010.

[*C-28*] Jin, S., Z. Liu, and J. Zhuang[=‡]. "Modeling and Mitigating the Effects of Supply Chain Disruption on Wargames," IIE Annual Conference and Expo 2010, Cancun, Mexico, June 5-9, 2010.

[*C-27*] Golalikhani, M. and J. Zhuang‡ "A Novel Class of Allocation Models with Applications to Attacker-defender Games," IIE Annual Conference and Expo 2010, Cancun, Mexico, June 5-9, 2010.

[*C-26*] Zhang, P., Q. Wang and J. Zhuang "Congestion Pricing under Travel Time Uncertainty: A Game Theory Perspective," Innovations in Pricing of Transportation Systems: Workshop and Conference, Orlando, Florida, May 13-14, 2010.

[*C-25*] Shan, X. and J. Zhuang‡ "Robust Defensive Resource Allocations in the Face of Strategic and Non-strategic Adversaries," SRA Annual Meeting, Baltimore, Maryland, December 6-9, 2009.

[*C-24*] Zhuang, J.‡ "Applied Mathematics, Game Theory, and Counter-terrorism," New York Conference on Applied Mathematics, Rochester, New York, October 17, 2009.

[*C-23*] Shan, X. and J. Zhuang‡ "Robust Defensive Resource Allocations in the Face of Strategic and Non-strategic Adversaries," INFORMS Annual Meeting, San Diego, California, October 11-14, 2009.

[*C-22*] Hausken, K. and J. Zhuang=‡ "The Timing and Deterrence of Terrorist Attacks," INFORMS Annual Meeting, San Diego, California, October 11-14, 2009.

[*C-21*] Hao, M., S. Jin and J. Zhuang‡ "Robustness of Optimal Defensive Resource Allocations in the Face of Less than Fully Rational Attackers," IIE Annual Conference and Expo 2009, Miami, Florida, May 30-June 3, 2009.

[*C-20*] Khopkar, S. and J. Zhuang‡ "Carrots instead of Sticks? Modeling 'Contracts' between Terrorist Groups and Governments," Conference on Terrorism and Policy, University of Texas at Dallas, Richardson, Texas, May 21-22, 2009.

[*C-19*] Zhuang, J.‡, V. M. Bier and O. Alagoz. "Modeling Secrecy and Deception in a Multiple-period Attacker-Defender Signaling Game" (poster), SRA Annual Meeting, Boston, Massachusetts, December 7-10, 2008.

[*C-18*] Hausken, K., V. M. Bier, and J. Zhuang‡. "Defending against Terrorism, Natural Disaster, and All Hazards," SRA Annual Meeting, Boston, Massachusetts, December 7-10, 2008.

[*C-17*] Zhuang, J.‡, V. M. Bier, and O. Alagoz. "Modeling Secrecy and Deception in a Multiple-period Attacker-Defender Signaling Game," INFORMS Annual Meeting, Washington DC, October 12-15, 2008.

[*C-16*] Zhuang, J.‡ and V. M. Bier. "Secrecy and Deception in Anti-Terrorism Resource Allocation and Policy Implication," Conference on Terrorism and Policy, University of Texas at Dallas, Richardson, Texas, May 15-17, 2008.

[*C-15*] Zhuang, J.‡ and V. M. Bier. "Modeling Secrecy and Deception in Homeland Security Resource Allocation," INFORMS Annual Meeting, Seattle, Washington, November 4-7, 2007.

[*C-14*] Zhuang, J.‡ and V. M. Bier. "Balancing Terrorism and Natural Disasters" (poster), Harvey Mudd College Mathematics Conference on Public Sector Operations Research, Claremont, California, September 28-29, 2007.

[*C-13*] Zhuang, J.‡ and V. M. Bier. "Balancing Terrorism and Natural Disasters" (poster), Kickoff Workshop of the Statistical and Applied Mathematical Sciences Institute (SAMSI) program on Risk Analysis, Extreme Events and Decision Theory, Research Triangle Park, North Carolina, September 16-19, 2007.

[*C-12*] Hausken, K.‡, V. M. Bier and J. Zhuang. "Defending against Terrorism, Natural Disaster, and All Hazards," 2007 Decision and Risk Analysis Conference, Dallas, Texas, May 21-22, 2007.

[*C-11*] Zhuang, J.‡ and V. M. Bier. "Balancing Terrorism and Natural Disasters" (poster), Risk Symposium 2007, Risk Analysis for Homeland Security and Defense: Theory and Application, Los Alamos National Laboratory, Santa Fe, New Mexico, March 25-28, 2007.

[*C-10*] Zhuang, J.‡ and V. M. Bier. "Modeling Secrecy and Deception in Homeland Security Resource Allocation," Risk Symposium 2007, Risk Analysis for Homeland Security and Defense: Theory and Application, Los Alamos National Laboratory, Santa Fe, New Mexico, March 25-28, 2007.

[*C-9*] Zhuang, J.‡ and V. M. Bier. "Game Theory and Homeland Security Resource Allocation" (poster), U.S. Department of Homeland Security, Annual University Network Summit on Research and Education, Washington, DC, March 13-15, 2007.

[*C-8*] Zhuang, J.‡ and V. M. Bier. "Balancing Protection from Terrorism and Natural Disasters," INFORMS Annual Meeting, Pittsburgh, Pennsylvania, November 5-8, 2006.

[*C-7*] Zhuang, J. and V. M. Bier‡. "Balancing Terrorism and Natural Disasters—Defensive Strategy with Endogenous Attack Effort," CREATE Symposium, Economic and Risk Assessment of Hurricane Katrina, University of Southern California, Los Angeles, California, August 18-19, 2006.

[*C-6*] Bier, V. M.‡, S. Oliveros‡ and J. Zhuang‡. "Game Theory," Renewal Review Meeting for CREATE, University of Southern California, Los Angeles, California, April 25-26, 2006.

[*C-5*] Zhuang, J.‡ and V. M. Bier. "Balancing Terrorism and Natural Disasters—Defensive Strategy with Endogenous Attack Effort," Risk Symposium 2006, Risk Analysis for Homeland Security and Defense: Theory and Application, Santa Fe, New Mexico, March 20-22, 2006.

[*C-4*] Zhuang, J.‡ and V. M. Bier. "Subsidized Security and Stability of Equilibrium Solutions in an N-Player Game with Errors," INFORMS Annual Meeting, San Francisco, California, November 13-16, 2005.

[*C-3*] Zhuang, J.‡, M. A. Marchant, S. Nokes, and H. Strobel. "Economic Analysis of Cellulase Production by Clostridium thermocellum in Solid State and Submerged Fermentation," American Agricultural Economics Association Annual Meeting, Denver, Colorado, August 1-4, 2004.

[*C-2*] Marchant, M. A., C. Murrell, and J. Zhuang‡. "Economics of Replacing Endophyte-Infected with Endophyte-Free Tall Fescue Pastures," Southern Agricultural Economics Association Annual Meeting, Tulsa, Oklahoma, February 14-18, 2004; abstract in the *Journal of Agricultural and Applied Economics*. 36:2(Aug. 2004).

[*C-1*] Peng, X.‡, M. A. Marchant, X. D. Qin, and J. Zhuang. "Chinese Consumers Preference for Livestock Products," American Agricultural Economics Association Annual Meeting, Montreal, Canada, July 27-30, 2003.

VIII. G Invited Research Seminars/Webinars

[*S-93*] Reconnect 2022: Optimization, June 15, 2022.

[*S-92*] Rensselaer Polytechnic institute, Department of Industrial and Systems Engineering, January 13, 2022

[*S-91*] University of Oklahoma, School of Industrial and Systems Engineering Seminar, September 2, 2021

[*S-90*] University at Buffalo, Department of Industrial and Systems Engineering Seminar, February 12, 2021

[*S-89*] University at Buffalo, Department of Biostatistics Seminar, September 24, 2020

[*S-88*] Pacific Northwest National Laboratory (PNNL), Mathematics for Artificial Reasoning in Science (MARS) Seminar, June 25, 2020

[*S-87*] Society for Risk Analysis Webinar, May 9, 2020

[*S-86*] Southern Fire Exchange Webinar, February 20, 2020

[*S-85*] China University of Geosciences, School of Economics and Management, November 8, 2019

[*S-84*] Southeast University (China), School of Economics and Management, November 6, 2019

[*S-83*] Nanjing University (China), School of Environment, November 6, 2019

[*S-82*] UB IISE Research Series, October 16, 2019

[*S-81*] Nanjing University (China), Department of Management Science & Engineering, July 12, 2019

[*S-80*] Tsinghua University (China), Department of Engineering Physics, July 5, 2019

[*S-79*] Nanjing Audit University, School of Statistics and Mathematics, June 12, 2019

[*S-78*] Carnegie Mellon University, Institute for Software Research, School of Computer Science, March 27, 2019

[*S-77*] Tsinghua University, Center for Crisis Management Research, School of Public Policy and Management, November 2, 2018

[*S-76*] Sichuan University (China), School of Business, July 24, 2018

[*S-75*] Binghamton University, Department of Systems Science and Industrial Engineering, April 19, 2018

[*S-74*] Oregon State University, School of Civil and Construction Engineering, March 21, 2018

[*S-73*] Kennesaw State University, Coles College of Business, February 23, 2018

[*S-72*] University of Houston-Clear Lake, Engineering Management Program, October 23, 2017

[*S-71*] Nanjing University (China), Department of Management Science & Engineering, July 31, 2017

[*S-70*] Pennsylvania State University, Department of Industrial and Manufacturing Engineering, April 11, 2017

[*S-69*] University of Michigan, Department of Industrial and Operations Engineering, April 5, 2017

[*S-68*] University at Buffalo, Department of Mathematics, February 14, 2017

[*S-67*] University of California-Irvine, Merage School of Business, December 8, 2016

[*S-66*] Center for Law & Human Behavior, The University of Texas at El Paso, December 1, 2016

[*S-65*] Beijing University of Aeronautics & Astronautics (China), School of Economics and Management, August 15, 2016

[*S-64*] China University of Petroleum, School of Business Administration, August 13, 2016

[*S-63*] Tsinghua University (China), Department of Industrial and Systems Engineering, August 12, 2016

[*S-62*] University of Science and Technology of China, School of Management, August 5, 2016

[*S-61*] Dalian University of Technology (China), Faculty of Management and Economics, July 18, 2016

[*S-60*] Dongbei University of Finance and Economics (China), School of Management Science and Engineering, July 17, 2016

[*S-59*] Nanjing University (China), Department of Management Science & Engineering, July 14, 2016

[*S-58*] The American Institute of Architects, June 29, 2016

[*S-57*] Nanyang Technological University (Singapore), School of Computer Engineering, March 17, 2016

[*S-56*] National University of Singapore, Department of Industrial and Systems Engineering, March 16, 2016

[*S-55*] Department of Homeland Security, Office of Cyber and Infrastructure Analysis, January 6, 2016

[*S-54*] Department of Homeland Security, Domestic Nuclear Detection Office, December 8, 2015

[*S-53*] University of Pittsburgh, Department of Industrial Engineering, October 15, 2015

[*S-52*] Jiangsu University of Technology (China), School of Economics and Management, May 19, 2015

[*S-51*] Nanjing University (China), Department of Management Science & Engineering, May 15, 2015

[*S-50*] Southeast University (China), Department of Management Science & Engineering, May 14, 2015

[*S-49*] Hohai University (China), Business School, May 13, 2015

[*S-48*] Huazhong University of Science and Technology (China), School of Automation, May 6, 2015

[*S-47*] Central China Normal University (China), School of Information Management,May 5, 2015

[*S-46*] Harbin Engineering University (China), School of Economics and Management, April 23, 2015

[*S-45*] Texas A & M University-Kingsville, Department of Mechanical and Industrial Engineering, April 14, 2015

[*S-44*] Texas A & M University, INFORMS Student Chapter, October 24, 2014

[*S-43*] Rochester Institute of Technology, Golisano Institute for Sustainability, October 15, 2014

[*S-42*] University of Science and Technology of China, School of Management, July 31, 2014

[*S-41*] Tsinghua University (China), Department of Industrial and Systems Engineering, July 11, 2014

[*S-40*] Renmin University of China, School of Business, July 10, 2014

[*S-39*] Tsinghua University (China), Institute of Public Safety Research, July 9, 2014

[*S-38*] UB Newman Center's Summer Lecture Series "Bridge", June 25, 2014

[*S-37*] Department of Defenses Strategic Multilayer Assessment (SMA) Speaker Series, March 4, 2014

[*S-36*] Syracuse University, Department of Mechanical and Aerospace Engineering, September 6, 2013

[*S-35*] Nanjing University (China), Department of Management Science & Engineering, June 17, 2013

[*S-34*] Southeast University (China), Department of Management Science & Engineering, June 17, 2013

[*S-33*] The Hong Kong Polytechnic University, Department of Logistics and Maritime Studies, June 10, 2013

[*S-32*] Sun Yat-sen University (China), Department of Management Science, June 6, 2013

[*S-31*] Northeastern University (China), Department of Management Science and Engineering, May 27, 2013

[*S-30*] University of Southern California, Center for Risk and Economic Analysis of Terrorism Events (CREATE), February 28, 2013

[*S-29*] University of Southern California, Game Theory and Human Behavior (GTHB) Group, February 27, 2013

[*S-28*] University of Waterloo (Canada), Department of Management Sciences, September 17, 2012

[*S-27*] Virginia Commonwealth University, Department of Statistical Sciences & Operations Research, May 2, 2012

[*S-26*] University of Delaware, Alfred Lerner College of Business & Economics, April 10, 2012

[*S-25*] University of Maryland, National Consortium for the Study of Terrorism and Responses to Terrorism (START), February 27, 2012

[*S-24*] University of Delaware, Department of Civil and Environmental Engineering/Disaster Research Center, February 23, 2012

[*S-23*] Johns Hopkins University, Department of Geography & Environmental Engineering, February 22, 2012

[*S-22*] University of Toronto (Canada), Rotman School of Management, October 28, 2011

[*S-21*] York University (Canada), School of Administrative Studies, October 27, 2011

[*S-20*] Nanjing University (China), Department of Management Science & Engineering, August 3, 2011

[*S-19*] Air Force Research Lab, Decision Support Systems Branch, July 14, 2011

[*S-18*] University of Toronto, Rotman School of Management, March 18, 2011

[*S-17*] University of Pittsburgh, Department of Industrial Engineering, February 1, 2011

[*S-16*] University of Pittsburgh, co-sponsored by Center for Disaster Management and Graduate School of Public and International Affairs, January 31, 2011

[*S-15*] University of Southern California, Center for Risk and Economic Analysis of Terrorism Events (CREATE), January 28, 2011

[*S-14*] University of California-Irvine, co-sponsored by Merage School of Business and Institute for Mathematical Behavioral Sciences, January 27, 2011

[*S-13*] University at Buffalo, Department of Civil, Structural and Environmental Engineering, October 15, 2010

[*S-12*] University of Arizona, Department of Systems and Industrial Engineering, April 23, 2010

[*S-11*] University at Buffalo, Department of Industrial and Systems Engineering, October 17, 2009

[*S-10*] Beijing University of Aeronautics & Astronautics (China), School of Economics and Management, March 20, 2009

[*S-9*] Nanjing University (China), School of Engineering Management, March 5, 2009

[*S-8*] Huazhong University of Science & Technology (China), Department of Control Science & Engineering, December 26, 2008

[*S-7*] Tsinghua University (China), Department of Industrial and Systems Engineering, December 23, 2008

[*S-6*] Beijing Municipal Institute of Labor Protection (China), December 22, 2008

[*S-5*] University of Wisconsin-Madison, Department of Industrial and Systems Engineering, April 30, 2008

[*S-4*] The Dow Chemical Company, Engineering & Process Science, July 23, 2007

[*S-3*] Chinese University of Hong Kong, Department of Systems Engineering & Engineering Management, June 1, 2007

[*S-2*] Southeast University (China), Department of Management Science & Engineering, July 7, 2006

[*S-1*] Nanjing University (China), Department of Management Science & Engineering, July 3, 2006

IX Research Grant Support

Summary of grant expenditure and credit based on % contribution to proposals:

Sponsor	**# of Projects**	**Total Costs**	**Zhuang Share**
National Science Foundation	8	$1,432,886	$1,380,166
Department of Homeland Security	22	$2,124,103	$1,317,979
Department of Energy	2	$183,000	$183,000
Fire Protection Research Foundation	1	$90,000	$90,000
Air Force Office of Scientific Research	1	$10,000	$10,000
University at Buffalo	2	$35,000	$25,000
SUNY	1	$5,000	$2,500
Total	37	$3,879,989	$3,008,647

[*G-37*] "DDRIG in DRMS: Multi-target Technology Deployment and Information Disclosure in Attacker-defender Settings: Analyzing Game-theoretic Prescriptions and Human Decisions," supported by National Science Foundation (NSF), Decision, Risk and Management Sciences (DRMS) program, J. Zhuang (PI, 100%; Co-PI: K. Hunt, Dr. Zhuang's Ph.D. student), 08/01/2022-07/31/2023, $15,325.

[*G-36*] "Protecting Soft Targets (ProSoT): A Game-theoretic Framework for Multi-target, Multi-layer Defense against Strategic Attackers," supported by the Department of Homeland Security (DHS) through the SENTRY (Soft target Engineering to Neutralize the Threat RealitY) Center, J. Zhuang (PI, and sole PI at UB, 100%; Co-PI is Richard John at University of Southern California), 11/1/2021-06/30/2023, $500,000 (UB Budget/Zhuang Share: $350,000). Dr. Zhuang is a thrust area ("Threat Risk Assessment, Prediction and Deterrence") lead coordinating 2-3 projects with an annual budget of $500-750K per year for the ten-year (2021-2031) SENTRY center proposal. Dr. Zhuang expects to be a PI for an individual project TBD valued at $250K per year for ten years. Funding is released annually by the sponsor. Additionally, UB provides a $1.5 million cost share over the 10-year period.

[*G-35*] "Impacts of COVID-19 on the Prescribed Fires Usage," supported by Buffalo Blue Sky program, J. Zhuang (PI, 100%), 3/15/2021-06/30/2023, $5,000.

[*G-34*] "Toward Designing a More Resilient Medical Supply Chain in Pandemics," supported by SUNY Research Seed Grant Program, J. Zhuang (PI, 50%; co-PI: Q. He), 4/30/2020-7/30/2020, $5,000.

[*G-33*] "Validating Adaptive Behavior Models of Adversaries for Risk Assessment (VABMARA) Framework," supported by the Department of Homeland Security through the Center for

Accelerating Operational Efficiency (CAOE), J. Zhuang (sole PI at UB, 100%; Lead PI is G. Ackerman at University at Albany), 8/1/2019-6/30/2023, $936,111 (UB Budget/Zhuang Share: $279,987).

[*G-32*] "A Novel Data-driven Model for Quantitatively Evaluating the Effectiveness of Border Security Investment," supported by the Department of Homeland Security through the Center for Accelerating Operational Efficiency (CAOE), J. Zhuang (sole PI, 100%), 7/1/2019-6/30/2020, $150,000.

[*G-31*] "A Collaborative Design Framework under Uncertainty," supported by Buffalo Blue Sky program, J. Zhuang (PI, 66.7%; co-PIs: K. Lewis and S. Behdad), 10/26/2018-06/30/2022, $30,000.

[*G-30*] "Modeling Rumor Spreading and Debunking Strategies on Social Media During Disasters," supported by National Science Foundation (NSF), Humans, Disasters, and the Built Environment (HDBE) program, J. Zhuang (sole PI, 100%), 08/01/2018-7/31/2022, $526,064.

[*G-29*] "RAPID: Identification of Key Dynamics for Rumor Spread and Control during Hurricanes Harvey and Irma," supported by National Science Foundation (NSF), Hurricane Harvey 2017 program, J. Zhuang (PI, 70%; Co-PI: Z. Yang), 10/01/2017-09/30/2018, $175,735.

[*G-28*] "Doctoral Dissertation Research in DRMS: Dynamic crisis communication, rumor combating and decision making analysis of misinformed social media users during disasters," supported by National Science Foundation (NSF), Decision, Risk and Management Sciences (DRMS) program, J. Zhuang (PI, 100%; Co-PI: B. Wang, Dr. Zhuang's Ph.D. student), 08/01/2017-07/31/2018, $15,950.

[*G-27*] "A Game Theoretic Deterrence Model for Maritime Containerized Cargo Pathway," supported by the Department of Homeland Security, Domestic Nuclear Detection Office through Pacific Northwest National Laboratory (PNNL), J. Zhuang (sole PI at UB, 100%; Lead PI is R. Brigantic at PNNL), 11/1/2017-7/13/2018, $50,000 (UB budget).

[*G-26*] "Incentives in Government Provision of Emergency Preparedness and Disaster Relief," supported by National Science Foundation (NSF), Infrastructure Management and Extreme Events (IMEE) program, J. Zhuang (sole PI, 100%), 09/01/2013-08/31/2017, $386,000.

[*G-25*] "Measurement of the Economic Impact of Fire," supported by the National Fire Protection Association–Fire Protection Research Foundation, J. Zhuang (sole PI, 100%), 3/13/2017-9/30/2017, $90,000.

[*G-24*] "Robust Approval Process in the Face of Strategic Adversaries and Normal Applicants," supported by National Science Foundation (NSF), Service Enterprise Systems (SES) program, J. Zhuang (sole PI, 100%), 08/15/2012-07/31/2016, $305,958.

[*G-23*] "Transportation Bridge Resilience Analysis," supported by the United States Department of Energy through the Argonne National Laboratory, J. Zhuang (sole PI, 100%), 10/15/2016-10/14/2017, $12,000.

[*G-22*] "Game Theoretic Modeling of Attacks and Defenses in Cyber-Physical Networks," supported by the United States Department of Energy through the Oak Ridge National Laboratory, J. Zhuang (sole PI, 100%), 01/15/2013-09/30/2015, $75,000.

[*G-21*] "A Visualization and Decision-Support Tool for Homeland Security Risk Prioritization: Follow-on," supported by United States Department of Homeland Security through the Center for Risk and Economic Analysis of Terrorism Events (CREATE) and University of Wisconsin-Madison (WISC), J. Zhuang (sole PI at UB, 100%; Lead PI is V. Bier at WISC), 07/01/2015-06/30/2016, $75,000 (UB portion).

[*G-20*] "Transitioning Analysis of Current and Future Catastrophic Risks from Emerging-Threat Technologies," supported by United States Department of Homeland Security through the Center for Risk and Economic Analysis of Terrorism Events (CREATE) and Global Catastrophic Risk Institute (GCRI), J. Zhuang (sole PI at UB, 100%; Lead PI is A. Barrett at GCRI), 07/01/2015-06/30/2016, $18,566 (UB portion).

[*G-19*] "A Visualization and Decision-Support Tool for Homeland Security Risk Prioritization," supported by United States Department of Homeland Security through the Center for Risk and Economic Analysis of Terrorism Events (CREATE) and University of Wisconsin-Madison (WISC), J. Zhuang (sole PI at UB, 100%; Lead PI is V. Bier at WISC), 07/01/2015-06/30/2016, $8,000 (UB portion).

[*G-18*] "Optimal Partnership Strategies for Cyber Threats," supported by United States Department of Homeland Security through the Center for Risk and Economic Analysis of Terrorism Events (CREATE), J. Zhuang (sole PI, 100%), 07/01/2015-06/30/2016, $30,000.

[*G-17*] "Extending Analysis of Current and Future Catastrophic Risks from Emerging-Threat Technologies," supported by United States Department of Homeland Security through the Center for Risk and Economic Analysis of Terrorism Events (CREATE) and Global Catastrophic Risk Institute (GCRI), J. Zhuang (sole PI at UB, 100%; Lead PI is A. Barrett at GCRI), 07/01/2014-06/30/2015, $13,533 (UB portion).

[*G-16*] "Validating Models of Adversary Behavior," supported by United States Department of Homeland Security through the Center for Risk and Economic Analysis of Terrorism Events (CREATE), J. Zhuang (sole PI, 100%), 07/01/2014-06/30/2015, $50,000.

[*G-15*] "Doctoral Dissertation Research in DRMS: Modeling the Dynamics of Agency-agency Partnerships before and following Extreme Events," supported by National Science Foundation (NSF), Decision, Risk and Management Sciences (DRMS) program, J. Zhuang (PI, 100%; Co-PI: J. Coles, Dr. Zhuang's Ph.D. student), 02/15/2013-01/31/2015, $12,500.

[*G-14*] "Countering the Inhumane: Modeling Probable Pathways for Human Trafficking Along the U.S.- Mexico Border," supported by United States Department of Homeland Security through the National Consortium for the Study of Terrorism and Responses to Terrorism (START), J. Zhuang (sole PI at UB, 100%; Lead PI: B. Behlendorf), 05/01/2014-3/28/2015, $10,000 (UB Portion).

[*G-13*] "Modeling Attacker-Defender Games with Risk Preferences," supported by United States Department of Homeland Security through the Center for Risk and Economic Analysis of Terrorism Events (CREATE), J. Zhuang (sole PI, 100%), 10/01/2013-06/30/2014, $50,000.

[*G-12*] "Analyzing Current and Future Catastrophic Risks from Emerging-Threat Technologies," supported by United States Department of Homeland Security through the Center for Risk and Economic Analysis of Terrorism Events (CREATE) and Global Catastrophic Risk Institute (GCRI), J. Zhuang (sole PI at UB, 100%; Lead PI is A. Barrett at GCRI), 10/01/2013-06/30/2014, $14,877 (UB portion).

[*G-11*] "Validating Models of Adversary Behavior," supported by United States Department of Homeland Security through the Center for Risk and Economic Analysis of Terrorism Events (CREATE), J. Zhuang (sole PI, 100%), 10/01/2012-09/30/2013, $35,000.

[*G-10*] "Game Theory Applied to Tribal Partnerships and Strategies for Emergency Management," supported by United States Department of Homeland Security through the Center for Risk and Economic Analysis of Terrorism Events (CREATE) and Applied Research in Environmental Sciences Nonprofit, Inc., J. Zhuang (sole PI, 100%), 12/01/2012-06/30/2013, $1,016.

[*G-9*] "Validating Models of Adversary Behavior," supported by United States Department of Homeland Security through the National Consortium for the Study of Terrorism and Responses to Terrorism (START), J. Zhuang (sole PI, 100%), 07/01/2012-06/30/2013, $40,000.

[*G-8*] "Game Theoretic Modeling of Attacks and Defenses in Cyber-Physical Networks," supported by United States Department of Energy through the Oak Ridge National Laboratory, J. Zhuang (sole PI, 100%), 03/01/2011-09/30/2012, $96,000.

[*G-7*] "Innovations in Game Theoretic Modeling for Terrorism and Natural Disasters," supported by United States Department of Homeland Security through the Center for Risk and Economic Analysis of Terrorism Events (CREATE), J. Zhuang (sole PI, 100%), 10/01/2011-07/31/2012, $40,000.

[*G-6*] "A Multiple-target Attacker-defender Game with Budget Constraints and Different Target Valuations," supported by United States Department of Homeland Security through the Center for Risk and Economic Analysis of Terrorism Events (CREATE), J. Zhuang (sole PI, 100%), 11/01/2011-07/31/2012, $30,000.

[*G-5*] "Extension Research on Visualizing Interactive and Automatic Wargames Training System," supported by the Air Force Office of Scientific Research (AFOSR) through the Air Force Research Laboratory, J. Zhuang (sole PI, 100%), 09/01/2011-12/31/2011, $10,000.

[*G-4*] "A Model of Terrorism and Counter Terrorism Expenditures," supported by the United States Department of Homeland Security through the Center for Risk and Economic Analysis of Terrorism Events (CREATE), J. Zhuang (sole PI, 100%), 03/01/2011-09/30/2011, $10,000.

[*G-3*] "Game Theory or Not Game Theory?—Hybrid Defense Resource Allocations," supported by United States Department of Homeland Security through the Center for Risk and Economic Analysis of Terrorism Events (CREATE), J. Zhuang (sole PI, 100%), 02/01/2011-09/30/2011, $25,000.

[*G-2*] "RAPID: Collaborative Research: Identification of Key Dynamics for Optimal Distribution and Sustainable Partnership in Haitian Disaster Recovery," supported by National Science Foundation (NSF), Infrastructure Management and Extreme Events (IMEE) program, J. Zhuang (sole PI at UB, 100%; co-PI at Texas A&M University: J. Yates), 06/01/2010-05/31/2011, $11,354 (UB portion).

[*G-1*] "Homeland-Security Games with Non-strategic Players," supported by United States Department of Homeland Security through the Center for Risk and Economic Analysis of Terrorism Events (CREATE) and Center for Human Performance and Risk Analysis, J. Zhuang (sole PI, 100%), 10/01/2008-09/30/2009, $25,000.

X Student Supervision

X. A Doctoral Students Graduated

[*DG-15*] Kyle Hunt: Graduated in January 2023. Dissertation title: "TBD." Placement: Assistant Professor, Department of Industrial and Production Engineering, Bangladesh University of Engineering and Technology.

[*DG-14*] Ridwan Al Aziz: Graduated in January 2022. Dissertation title: "Data-Driven Apprehension Prediction and Optimal Resource Allocation Modelling to Combat Border Security Crisis." Placement: Clinical Assistant Professor, Department of Management Science and Systems, University at Buffalo.

[*DG-13*] Puneet Agarwal: Graduated in August 2021. Dissertation title: "Monitoring and Controlling Rumors, Misinformation, and Disinformation on Social Media." Placement: Assistant Professor, Industrial and Manufacturing Engineering Department, California Polytechnic State University.

[*DG-12*] Nafisa Mahbub: Graduated in August 2021. Dissertation title: "An Approach to Effective Disruption of Human Trafficking through Data-Driven Spatial-Temporal Prevalence Estimation and Optimal Interdiction of Interdependent Illicit Trades." Placement: Assistant Professor, Department of Mechanical Engineering, Military Institute of Science & Technology, Bangladesh.

[*DG-11*] Mohammed Hassan Y Alyaqub: Graduated in August 2021. Dissertation title: "A Bi-Level Modeling Approach to Deter Illicit Traffic of Nuclear and Radioactive Materials." Placement: Assistant Professor, Department of Systems Engineering, King Fahd University of Petroleum and Minerals, Saudi Arabia.

[*DG-10*] Ali Pala: graduated in May 2019. Dissertation title: "Homeland Security Models: Screening, Patrolling, and Information Sharing." Placement: Senior Operations Research Engineer, Arute Solutions.

[*DG-9*] Vineet Madasseri Payyappalli: graduated in May 2019. Dissertation title: "Data-Driven Fire Risk Management: Spatio-Temporal Prediction and Resource Allocation Models." Placement: Data Scientist, WestRock.

[*DG-8*] Bairong Wang: graduated in January 2019. Dissertation title: "Crisis Communication on Social Media: Behaviors and Pattens." Placement: Assistant Professor, School of Economics and Management, Shanghai Maritime University (China)

[*DG-7*] Jing Zhang: graduated in January 2018. Dissertation title: "Detection, Interdiction, and Defensive Resource Allocation Games in Homeland Security." Placement: Data Scientist, Ford Motors.

[*DG-6*] Peiqiu Guan: graduated August 2015. Dissertation title: "Public and Private Partnership in Disaster Management." Placement: Modeling/Scoring/Analysis-Analyst, Citibank N.A.

[*DG-5*] Cen Song: graduated August 2014. Dissertation title: "Screening Strategies in the Face of Strategic Applicants with Network Queuing." Placement: Assistant Professor, School of Business Administration, China University of Petroleum. Current Position: Associate Professor, School of Business Administration, China University of Petroleum.

[*DG-4*] John Coles: graduated in May 2014. Dissertation title: "Modeling and Simulating the Network Behavior of Agencies during Disaster Relief Operations." Placement: Senior Research Scientist, CUBRC (after declining an Assistant Professor offer from Stevens Institute of Technology); John is also a Research Assistant Professor, UB-ISE.

[*DG-3*] Fei He: graduated in August 2013. Dissertation title: "Balancing Pre-Disaster Preparedness and Post-Disaster Relief for Natural Disasters and Terrorism." Current Position: Associate Professor, Department of Mechanical and Industrial Engineering, Texas A&M University-Kingsville.

[*DG-2*] Jie Xu: graduated in August 2013. Dissertation title: "Robust Screening Policy at Security Queues in the Presence of Strategic Applicants with Private Information." Placement: Business Consultant, Neuric Technologies Llc.

[*DG-1*] Xiaojun Shan: graduated in August 2012. Dissertation title: "Game-theoretic Defensive Resource Allocations in the Face of a Partially Strategic Attacker Considering Equity Constraints." Current position: Associate Professor, Engineering Management Program, University of Houston-Clear Lake.

X. B Doctoral Students Supervision in Progress

[*DP-4*] Kyle Hunt: expected graduation December 2022.

[*DP-3*] Jianzhou Qi: expected graduation August 2024.

[*DP-2*] Ian Unson: expected graduation August 2025.

[*DP-1*] Fatemeh Gholizadeh: expected graduation August 2026.

X. C Doctoral Committee Member

[*DC-11*] Zhiyuan Wei (Chair: Dr. Sayanti Mukherjee): Expected Graduation: August 2023.

[*DC-10*] Shaopeng Li (Chair: Dr. Teng Wu): Expected Graduation: August 2022.

[*DC-9*] Praveen Kumare Gopalakrishnan (Chair: Dr. Sara Behdad): Graduated in January 2021

[*DC-8*] Xi Zheng (Chair: Dr. Matthew Bolton): Graduated in May 2020

[*DC-7*] Adam Houser (Chair: Dr. Matthew Bolton): Graduated in May 2018

[*DC-6*] Mostafa Sabbaghi (Chair: Dr. Sara Behdad): Graduated in May 2018

[*DC-5*] Mahboobeh Ghesmaty Sangachin (Chair: Dr. Lora Cavuoto): Graduated in December 2017

[*DC-4*] Lei Sun (Chair: Dr. Mark Karwan): Graduated in June 2013

[*DC-3*] Md. Tanveer Ahmed (Chair: Dr. Changhyun Kwon): Graduated in February 2013

[*DC-2*] Liya Guo (Chair: Dr. Adel Sadek): Graduated in June 2012

[*DC-1*] Wanyan Yu (Chair: Dr. Rajan Batta): Graduated in February 2011.

X. D Master's Student (with Thesis) Graduated

[*MG-29*] Madhusudhana, Kruthika: Graduated in May 2021. Thesis title: "Text Classification Models for Automatic Detection of Fake Covid Products and News on Social Media." Placement: Manufacturing Engineer, Abbott.

[*MG-28*] Singha, Nilashish: Graduated in May 2021. Thesis title: "Impact of Covid-19 on the Meat Industry: A Game Theoretic Perspective." Placement: Assistant Vice President, Risk Management Reporting Analyst, Citi.

[*MG-27*] Patke, Atharva: Graduated in May 2021. Thesis title: "Modelling the Effects of the Trade War between the US and China: A Game Theoretic Approach." Placement: Quantitative Analyst, Citi.

[*MG-26*] Kulkarni, Saurabh: Graduated in May 2021. Thesis title: "Covid 19 Impact on PPE demand: Analyzing and Forecasting PPE Demand of California State Counties." Placement: Developer, Tata Consultancy Services.

[*MG-25*] Lazin, Marko: Graduated in May 2021. Thesis title: "Government Tone and Public Sentiment Coronavirus Tweets in the 10 Most Populated U.S. Cities." Placement: Agile Lead, Authentise.

[*MG-24*] Busareddy, Mourya: Graduated in May 2021. Thesis title: "Forecasting Passenger Demand and Estimating the Impact of the COVID 19 on US Air Transport Passenger Demand using Intervention Analysis." Placement: Marketing Statistic Analyst, FCB Chicago.

[*MG-23*] Lakshmi Narayanan, Adithya Narayanan: Graduated in May 2021. Thesis title: "Enhancing News Article Perception with Quantification of Contextual Metrics: Partisanship and Reaction Polarity." Placement: Ph.D. Student, University at Buffalo.

[*MG-22*] Adiga, Pritish Shivananda : Graduated in May 2021. Co-advised with Dr. Qing He; Thesis title: "Predicting PPE demand in hospitals and shortages due to COVID 19 using a discrete time Markov chain stochastic model and neural network based classification model." Placement: Demand Planning Manager, Tesla.

[*MG-21*] Anjarlekar, Sujay Dayanand: Graduated in May 2020. Thesis title: "Optimization of Online Advertising on Search-engines." Placement: Commercial Operations Analyst, Almirall LLC.

[*MG-20*] Antonio Dimitrov: Graduated in May 2020. Thesis title: "Decision Modeling of the Spread of Rumors on Online Social Media." Placement: Continuous Improvement Engineer at GAL Manufacturing.

[*MG-19*] Yash Ahuja: Graduated in May 2019. Thesis title: "Strategic Execution of a Smart City Project: A Game theoretic model between Government Agencies and Citizens." Placement: Software Engineer, Smartsoft International Inc.

[*MG-18*] Arpit Rana: Graduated in May 2019. Thesis title: "Exploratory Data Analysis of Wildfires in USA." Placement: Analytics Engineer, ACV Auctions

[*MG-17*] Zonghao Wang: Graduated in May 2019. Thesis title: "Modeling Rumor Spreading Decisions on Social Media." Placement: Back to China.

[*MG-16*] Mohit Singh Panesir: Graduated in May 2018. Thesis title: "Blockchain Applications for Disaster Management and National Security." Placement: Analytics Associate, Factspan.

[*MG-15*] Shivasubramanian Srinivasan: Graduated in May 2018. Thesis title: "Fire Safety Code Inspection – A Game between Fire Inspection Agency and Building Owners" Placement: Supply Chain Operations Analyst, FreshDirect.

[*MG-14*] Haritha Appojala: Graduated in January 2018. Thesis title: "Exploratory Data Analysis, Regression, Prediction and Optimization Models using National Bridge Inventory Database." Placement: Senior Operations Research Analyst, FedEx.

[*MG-13*] Junlin Tang: Graduated in December 2017. Thesis title: "Big Data and Predictive Analytics in Fire Risk using Weather Data." Placement: Valuation Analyst, Citi.

[*MG-12*] Vijoe Maria Michael Raj: Graduated in August 2017. Thesis title: "An Advanced Analytical Approach for Optimal Resource Allocation to Fire Departments." Placement: Senior Operations Research Analyst, Fedex.

[*MG-11*] Shiva Subramanian Ganesan: Graduated in May 2017. Thesis title: "A Game Theory Framework to Architecture Decision Making Process." Placement: Bioinformatics Scientist, Children's Hospital of Philadelphia.

[*MG-10*] Meilin He: Graduated in May 2017. Thesis title: "An attacker-defender resource allocation game with complementary and substituting effects." Placement: Financial Analyst, Citi.

[*MG-9*] Vineet Madasseri Payyappalli: Graduated in May 2015. Thesis title: "Modeling Risk Preferences in a Sequential Attacker-Defender Game with Continuous Defense Effort." Placement: Ph.D. Student, University at Buffalo.

[*MG-8*] Urvashi Lalit Shah: Graduated in May 2015. Thesis title: "Game-Theoretic Approach to Resilience of Cyber-Physical Network Infrastructures and Preventive Strategies for Providers in the face of EMP threats." Placement: Senior Analyst, Stanley Black & Decker.

[*MG-7*] Xiaowen Wang: Graduated in May 2014. Thesis title: "Simulating a Multi-stage Screening Network—A Queueing Theory and Game Theory Application." Placement: Software Quality Engineer, Microstrategy.

[*MG-6*] Wei-Yuan Hsu: Graduated in December 2011. Thesis title: "Heuristics, Optimization, and Equilibrium Analysis for Automated Wargames." Placement: Graduate Student, University of Connecticut.

[*MG-5*] Long Zhang: Graduated in August 2011. Thesis title: "Modeling Free-gym as an Incentive Game between Healthcare Insurance Company and Policy Subscribers." Placement: Placement: International Cooperation Bureau, Supreme People's Procuratorate, China.

[*MG-4*] Cen Song: graduated in August 2011. Thesis title: "Food Supply Chain Risk Management: A Sequential Game between Retailers and Regulating Government in the face of Strategic Consumers." Placement: Ph.D. Student, University at Buffalo.

[*MG-3*] Han Wu: graduated in May 2011. Thesis title: "Publicity vs. Impact — A Sequential Game with a Non-profit Organization and N Donors." Placement: Ph.D. Student, University of Louisville.

[*MG-2*] Jerome Ndayishimiye Niyirora; graduated in December 2010. Thesis title: "Differential Equations Modeling of Patients and Physicians Dynamics in Emergency Rooms: Optimal control solutions and heuristic implementation methods." Placement: Instructor, State University of New York Polytechnic Institute.

[*MG-1*] Mohsen Golalikhani; graduated in December 2010. Thesis title: "Modeling arbitrary layers of continuous level defenses in facing with strategic attacker." Placement: Ph.D. Student, University at Buffalo.

X. E M.S. Students (with Thesis) in Progress

[*MP-2*] Cecilia Rich; expected graduation: May 2024

[*MP-1*] Saif Ahmed Chowdhury; expected graduation: Februrary 2023

X. F M.S. Committee Member

[*DC-1*] Xuan Han (Chair: Dr. Qing He): graduated in January 2017. Thesis title: "Online Adaptive Traffic Signal Coordination with a Game Theoretic Approach"

X. G Undergraduate Research Students

[*U-94*] Diego Sanchez: Fall 2022

[*U-93*] Hammad Aga: Fall 2022

[*U-92*] Guller Yazgi Akata: Fall 2022

[*U-91*] Sanskriti Bansal: Fall 2022

[*U-90*] Christopher Stuhler: Fall 2022

[*U-89*] Yuzhang Huang: Fall 2022

[*U-88*] Abida Islam: Fall 2022

[*U-87*] Cedric Bone: Spring 2022; Summer 2022 (CSTEP Research Program for underrepresented students); Fall 2022

[*U-86*] Steven Wang: Fall 2021; Spring 2022; Summer 2022; Fall 2022

[*U-85*] Lis Rhea Viegas: Spring 2022

[*U-84*] Thinh Ho: Spring 2022

[*U-83*] Derar Lulu: Spring 2022

[*U-82*] Lolina Schietekat Sedas: Spring 2022

[*U-81*] Lana Kim: Fall 2021; Spring 2022

[*U-80*] Netra Mittal: Spring 2021; Summer 2021; Fall 2021; Spring 2022

[*U-79*] Carter Wilcox: Spring 2021; Summer 2021; Fall 2021; Spring 2022

[*U-78*] Manaswi Mancha: Fall 2020; Spring 2021; Summer 2021; Fall 2021; Spring 2022; Summer 2022 (McNair Scholars Program for underrepresented students); Fall 2022

[*U-77*] Colette Fraser: Spring 2019; Fall 2019; Spring 2020; Summer 2020; Fall 2020; Spring 2021; Summer 2021; Fall 2021; Spring 2022

[*U-76*] Mirka Arevalo: Summer 2020 Collegiate Science & Technology Entry Program (CSTEP) program; Fall 2020; Spring 2021; Summer 2021; Fall 2021; Spring 2022

[*U-75*] Margaret Ardizzone: Fall 2019; Spring 2020; Summer 2020; Fall 2020; Summer 2021; Fall 2021; Spring 2022

[*U-74*] Sarah Gifford: Spring 2019; Fall 2019; Spring 2020; Fall 2020; Spring 2021

[*U-73*] Qinran Wang: Spring 2021; Summer 2021

[*U-72*] Tanvie Kirane: Spring 2021

[*U-71*] Giancarlo Herring-Calvo : Spring 2021

[*U-70*] Alvin Pang: Spring 2021

[*U-69*] David Zhang: Spring 2021

[*U-68*] Denil Oonnittan: Fall 2020; Spring 2021

[*U-67*] Daniel Deslippe: Spring 2020; Summer 2020; Fall 2020

[*U-66*] Esther Jose: Spring 2017, Fall 2017, Spring 2018; Summer 2018, Fall 2018; Spring 2019 ; Summer 2019; Fall 2019; Spring 2020; Summer 2020

[*U-65*] Ji Ho Lee: Fall 2019; Spring 2020

[*U-64*] Lucas Wickham: Spring 2020

[*U-63*] Thomas Short: Spring 2019; Fall 2019; Spring 2020

[*U-62*] Zay Ya Min Yin: Fall 2019

[*U-61*] Katherine Rollins: Fall 2019

[*U-60*] Michael Marianiello: Spring 2019; Fall 2019

[*U-59*] Jonathan Garriques: Fall 2019

[*U-58*] Brandon Francisco: Fall 2019

[*U-57*] Saumya Pandey: Spring 2019; Spring 2019

[*U-56*] Elizabeth Friar: Spring 2019; Fall 2019

[*U-55*] Felicity Carmichael: Fall 2019

[*U-54*] Antonio Dimitrov: Fall 2018; Spring 2019

[*U-53*] Nabeel Khalid: Fall 2018

[*U-52*] Matthew Sixt: Fall 2018; Spring 2019

[*U-51*] Raman Kadariya: Fall 2018; Spring 2019

[*U-50*] Lawzeem Latif: Fall 2018

[*U-49*] Thomas Panzica: Fall 2018; Spring 2019; Fall 2019

[*U-48*] Kyle Hunt: Fall 2017, Spring 2018 , Summer 2018, Fall 2018; Spring 2019; Fall 2019

[*U-47*] Elyse Levine: Fall 2017, Spring 2018 , Summer 2018, Fall 2018; Spring 2019

[*U-46*] Eric Niblock: Summer 2018, Fall 2018

[*U-45*] Jesse Iannarelli: Summer 2018, Fall 2018

[*U-44*] Madeline Donegan: Fall 2017, Spring 2018, Summer 2018, Fall 2018; Spring 2019

[*U-43*] Sarah Schwartz: Spring 2017, Fall 2017, Spring 2018

[*U-42*] Kathryn Lukasiewicz: Spring 2016, Fall 2016, Spring 2017 (NSF REU student), Fall 2017, Spring 2018

[*U-41*] Adam Behrendt: Fall 2015, Spring 2016, Fall 2016, Spring 2017 (NSF REU student), Fall 2017, Spring 2018

[*U-40*] Alexander Liu: Spring 2018

[*U-39*] Benjamin Swart: Fall 2017 , Spring 2018

[*U-38*] Vincenzo Giancaspro: Fall 2017 , Spring 2018

[*U-37*] Alexander Stojanovski: Fall 2017, Spring 2018

[*U-36*] Donald Hession: Summer 2017, Fall 2017, Spring 2018

[*U-35*] Tyree Singleton: Summer 2017 (CSTEP Research Program for underrepresented students), Fall 2017, Spring 2018

[*U-34*] Bailey Wei: Summer 2017, Fall 2017, Spring 2018

[*U-33*] Vincent Philippone: Fall 2016

[*U-32*] Fanni Kozma: Fall 2016, Spring 2017, Fall 2017, Spring 2018

[*U-31*] Benjamin Grace: Fall 2016

[*U-30*] Jerry Qu: Summer 2016, Fall 2016, Spring 2017

[*U-29*] Joao Pedro Pimentel Abbade: Summer 2016

[*U-28*] Nikhitha Garapati: Summer 2016

[*U-27*] Victoria Xue: Summer 2016, Fall 2016, Fall 2017, Spring 2018

[*U-26*] Leurys Mesa: Spring 2016, Fall 2016

[*U-25*] Daniel Seaberg: Fall 2014, Spring 2015 (NSF REU student), Summer 2015, Fall 2015, Spring 2016 (NSF REU student), Fall 2016, Spring 2017

[*U-24*] Laura Devine: Fall 2014, Spring 2015, Summer 2015, Fall 2015, Spring 2016 (NSF REU student), Fall 2016, Spring 2017

[*U-23*] Robert Purkiss: Fall 2015, Spring 2016

[*U-22*] Kyoung Eun Park: Summer 2014, Fall 2014, Spring 2015, Summer 2015

[*U-21*] Bruck Adam: Summer 2010, Fall 2010 (CSTEP/SUNY LSAMP Research Program for underrepresented students)

[*U-20*] Kristen Alcazaren: Fall 2012, Spring 2013, Fall 2013, Spring 2014

[*U-19*] Leonard Arambam: Spring 2013, Fall 2013, Spring 2014, Fall 2014, Spring 2015, Fall 2015

[*U-18*] John Balzani: Fall 2013, Spring 2014, Fall 2014, Spring 2015

[*U-17*] Matthew Brondum: Spring 2013, Fall 2013, Spring 2014 (NSF REU student)

[*U-16*] Lauren Coviello: Summer 2013, Fall 2013, Spring 2014

[*U-15*] Thomas Darlington: Fall 2012, Spring 2013, Summer 2013, Fall 2013, Spring 2014 (NSF REU student), Fall 2015

[*U-14*] Christopher Diaz: Fall 2013, Spring 2014, Fall 2014, Spring 2015 (NSF REU student)

[*U-13*] Ryan Hauser: Summer 2013

[*U-12*] Paige Tesmer: Fall 2012, Spring 2013, Fall 2013, Spring 2014 (NSF REU student)

[*U-11*] Giovanni Madejski: Spring 2012, Summer 2012, Fall 2012, Spring 2013, Summer 2013, Fall 2013, Spring 2014

[*U-10*] Marie Catalano: Fall 2011, Spring 2012 (NSF REU student), Summer 2012, Fall 2012, Spring 2013

[*U-9*] May Cheung: Spring 2010, Summer 2010, Fall 2010, Spring 2011, Fall 2011, Spring 2012 (UB Senior Scholar Incentive Program)

[*U-8*] Jodie-Ann Duquesnay: Fall 2010, Spring 2011, Fall 2011, Spring 2012, Fall 2012, Spring 2013 (CSTEP/SUNY LSAMP Research Program for underrepresented students; UB CURCA Research Program for undergraduate students)

[*U-7*] Sabrina Fleurantin: Summer 2009 (CSTEP/SUNY LSAMP Research Program for underrepresented students)

[*U-6*] Hao Chen: Spring 2011

[*U-5*] Zhihao Liu: Fall 2010, Spring 2011

[*U-4*] Elizabeth Newell: Spring 2010, Summer 2010, Fall 2010, Spring 2011, Fall 2011, Spring 2012, Fall 2012, Spring 2013 (NSF REU student; UB CURCA Research Program for undergraduate students)

[*U-3*] Nevin Multu: Spring 2011 (UB Senior Scholar Incentive Program)

[*U-2*] John Coles: Spring 2009 (UB Senior Scholar Incentive Program/IE 499 Independent Study)

[*U-1*] Benjamin Yi: Fall 2013 (UB Honors Contract project)

X. H High-school Students with Research Projects

[*K-7*] Eileen Wang: (9th grade student from Williamsville East High School): 2020-2021 Bridges from Borders (BFB) Project on Mental Health; Our team project on mental health among teens won the highest Gold Prize ($1800)

[*K-6*] Dasang Dolma: 11th grade student from Williamsville East High School): 2020-2021 Bridges from Borders (BFB) Project on Mental Health; Our team project on mental health among teens won the highest Gold Prize ($1800)

[*K-5*] Katherine Metzler: (11th grade Student from Kenmore West High School): 2013 BEAM/SEAS Honors Research Summer Program for underrepresented students

[*K-4*] Alexa Ditonto: (11th grade Student from Orchard Park High School): 2012 BEAM/SEAS Honors Research Summer Program for underrepresented students

[*K-3*] Mary Rose Ricotta (11th grade Student from Immaculata Academy): 2012 BEAM/SEAS Honors Research Summer Program for underrepresented students

[*K-2*] Dana Voll: (11th grade Student from Clarence High School): 2011 BEAM/SEAS Honors Research Summer Program for underrepresented students

[*K-1*] Marcus Alexander: (12th grade student from City Honors High School): 2010 BEAM/SEAS Honors Research Summer Program for underrepresented students

X. I Visiting Ph.D. Students Supervision

[*DV-15*] Yuying Yang: Visiting Dr. Zhuangs group from September 2021 to March 2023; Ph.D. Student from China University of Geosciences.

[*DV-14*] Qifeng Wan: Visiting Dr. Zhuangs group from December 2019 to November 2020; Ph.D. Student from Central South University (China).

[*DV-13*] An Zhou: Visiting Dr. Zhuangs group from October 2019 to September 2020; Ph.D. Student from Harbin Engineering University (China).

[*DV-12*] Mingyun Gu: Visiting Dr. Zhuangs group from September 2019 to September 2021; Ph.D. Student from China University of Geosciences.

[*DV-11*] Jun Hu: Visiting Dr. Zhuang's group from March 2019 to August 2019; Ph.D. Student from Tsinghua University, China.

[*DV-10*] Jia Wang: Visiting Dr. Zhuang's group from September 2018 to September 2019; Ph.D. Student from Tsinghua University, China.

[*DV-9*] Jie Jin: Visiting Dr. Zhuang's group from September 2017 to September 2018; Ph.D. Student from Beihang University, China.

[*DV-8*] Sulian Wangi: Visiting Dr. Zhuang's group from December 2016 to June 2017; Ph.D. Student from Tsinghua University, China.

[*DV-7*] Feng Li: Visiting Dr. Zhuang's group from September 2016 to September 2017; Ph.D. Student, University of Science and Technology of China

[*DV-6*] Yiran Cao: Visiting Dr. Zhuang's group from October 2015 to April 2016; Graduate Student from Nanjing University, China.

[*DV-5*] Zhimei Lei: Visiting Dr. Zhuang's group from October 2015 to October 2017; Ph.D. Student from Dalian University of Technology, China.

[*DV-4*] Shuying Li: Visiting Dr. Zhuang's group from November 2014 to December 2014, and from September 2015 to September 2016; Ph.D. Student from Tsinghua University, China.

[*DV-3*] Zifeng Su: Visiting Dr. Zhuang's group from August 2015 to August 2016; Ph.D. Student from Harbin Engineering University, China.

[*DV-2*] Jing Fu: Visiting Dr. Zhuang's group from August 2013 to January 2015; Ph.D. Student from Huazhong Normal University, China.

[*DV-1*] Yan Wang: Graduate Student, University of Michigan, Ann Arbor; Visiting Dr. Zhuang's group from May 2014 to July 2014.

X. J Visiting Professors/Scholars Supervision

[*PV-11*] Qingwu Gao: Associate Professor, Nanjing Audit University, Visiting Dr. Zhuang's group from March 2018 to March 2019.

[*PV-10*] Xuejun Ding: Associate Professor, Dongbei University of Finance and Economics, Visiting Dr. Zhuang's group from September 2017 to September 2018.

[*PV-9*] Wenxing Xu: Associate Professor, Beijing Institute of Petrochemical Technology, Visiting Dr. Zhuang's group from December 2016 to November 2017.

[*PV-8*] Lihua Li: Associate Professor, Peoples Public Security University of China, Visiting Dr. Zhuang's group from September 2016 to September 2017.

[*PV-7*] Manxiu Ning: Associate Professor, Fuzhou University, China, Visiting Dr. Zhuang's group from December 2014 to December 2015.

[*PV-6*] Jingjing Wang: Associate Research Fellow, Jiangsu Academy of Agricultural Sciences, China; Visiting Dr. Zhuang's group from August 2015 to August 2016.

[*PV-5*] Tao Wang: Officer, Public Security Department of Jiangsu Province, China; Visiting Dr. Zhuang's group from February 2015 to April 2016.

[*PV-4*] Xuhui Zheng: Associate Professor, Fuzhou University, China, Visiting Dr. Zhuang's group from December 2014 to December 2015.

[*PV-3*] Yulin Deng: Assistant Professor, Business School of Hohai University, China; Visiting Dr. Zhuang's group from June 2010 to December 2010.

[*PV-2*] Jianyuan Huang: Professor, College of Public Administration, Hohai University, China; Visiting Dr. Zhuang's group from July 2009 to December 2009.

[*PV-1*] Xianghong Lai: Assistant Professor, Nanjing University of Information Science & Technology, China; Visiting Dr. Zhuang's group from February 2014 to August 2014.

XI Service

XI. A Professional Organization Service

Working Groups to National Organizations

- Study committee member, project "Data Science training for the DoD Acquisitions Workforce," The National Academies of Sciences, Engineering, and Medicine (NASEM), 2019-2021.
- Working group co-chair, project "National Security," The Statistical and Applied Mathematical Sciences Institute (SAMSI)-Games and Decisions in Reliability and Risk Workshop, 2019-2020.

Review Activities for Agencies

- National Science Foundation: Proposal reviewer (11 times: 2008, 2010, 2016x2, 2017, 2018x2, 2019x2, 2020, 2022), Panelist (15 times: 2008, 2012, 2014x2, 2016x2, 2019x3, 2020x3, 2021, 2022, 2023)
- Swiss National Science Foundation (SNSF): Proposal reviewer (2022)
- The U.S.-Israel Binational Science Foundation (BSF): Proposal reviewer (2019)
- Dutch National Science Foundation (NWO): Proposal reviewer (2013)
- Foundation for Polish Science: Proposal reviewer (2014)
- European Research Council: Proposal reviewer (2015)
- National Science Centre, Poland: Proposal reviewer (2017, 2018)
- Ministry of Science and Technology of Israel: Proposal reviewer (2017-2018)
- National Fire Protection Association - Fire Protection Research Foundation Technical Panel for the project "Economic Impact of Fire Fighter Injury" (2018)
- Council on Undergraduate Research: Reviewer for 2018 Posters on the Hill (2017)
- Maritime Security Center, A Department of Homeland Security Center of Excellence: Proposal reviewer (2017)

- New York, New Jersey and Connecticut Sea Grant Coastal Storm Awareness Program: Proposal reviewer (2013)
- National Defense Science and Engineering Graduate (NDSEG) Fellowship (joint program with Department of Defense), administered by American Society for Engineering Education: Panelist (2012, 2017, 2019, 2022)
- NASA Aeronautics Scholarship Program (joint program with National Aeronautics and Space Administration), administered by American Society for Engineering Education: Panelist (2012)
- Air Force Summer Faculty Fellowship Program (AF SFFP) (joint program with Air Force Office of Scientific Research), administered by American Society for Engineering Education: Panelist (2013, 2022)

Journal Editorial & Review Services:

- Associate Editor for *IISE Transactions*, since 2020
- Associate Editor for *Naval Research Logistics*, since 2019
- Associate Editor for *Decision Analysis*, since 2017
- Special issue guest editor for *Risk Analysis*, 2019-2022; 2013-2016
- Editorial Board for *Decision Analysis*, since 2011
- Editorial Board for *Risk Analysis*, since 2013
- Editorial Board for *IISE Transactions*, since 2020
- Editorial Board for *Naval Research Logistics*, since 2019
- Editorial Board for *Risk Analysis*, since 2013
- Editorial Board for *International Journal of Management Science and Engineering Management*, since 2020
- Editorial Board for *Environment, Systems and Decisions*, since 2012
- Editorial Board for *International Journal of Operations Research and Information Systems*, 2008-2015
- Editorial Board for *Games*, since 2022
- Ad-hoc Reviewer: I have reviewed **640** (2006x2, 2007x7, 2008x13, 2009x21, 2010x49, 2011x37, 2012x38, 2013x37, 2014x36, 2015x45, 2016x63, 2017x60, 2018x68, 2019x73, 2020x53, 2021x26, 2022x45, 2023x6) articles for **175** academic journals:
  - ✓ *Advances in Aerospace Engineering* (1:2015)
  - ✓ *AIMS Mathematics* (1:2021)
  - ✓ *Algorithms* (1:2020)
  - ✓ *Annals of Operations Research* (9: 2010, 2012x2, 2013x3, 2016x2, 2022)
  - ✓ *Applied Engineering in Agriculture* (1: 2007)
  - ✓ *Applied Mathematics and Computation* (1: 2011)

- ✓ *Asian Academy of Management Journal* (1: 2020)
- ✓ *Asia-Pacific Journal of Operational Research* (3: 2009x2, 2010)
- ✓ *Behaviour & Information Technology* (2: 2019, 2020)
- ✓ *BMC Public Health* (1: 2022)
- ✓ *China Economic Review* (3: 2016x2, 2017)
- ✓ *Computer Communications* (1: 2017)
- ✓ *Complex & Intelligent Systems* (1: 2022)
- ✓ *Computers & Electrical Engineering* (2: 2016, 2018)
- ✓ *Computers & Industrial Engineering* (3: 2014, 2019x2)
- ✓ *Computers & Operations Research* (1: 2020)
- ✓ *Computers & Security* (1: 2020)
- ✓ *Conflict Management and Peace Science* (2: 2010, 2016)
- ✓ *Decision Analysis* (31: 2010x2, 2011x9, 2012x2, 2014x4, 2015x4, 2016x2, 2017, 2018x3, 2019x2, 2022x2)
- ✓ *Decision Sciences* (2: 2014, 2016)
- ✓ *Defence Technology* (2: 2020x2)
- ✓ *Defence & Peace Economics* (3: 2009, 2012, 2018)
- ✓ *Democracy and Security* (1: 2017)
- ✓ *Disasters* (1: 2020)
- ✓ *Earthquake Spectra* (1: 2016)
- ✓ *Economic Modelling* (2: 2016x2)
- ✓ *Encyclopedia of Business Analytics and Optimization* (1: 2012)
- ✓ *Energies* (2: 2018x2)
- ✓ *Engineering* (1: 2017)
- ✓ *Engineering Applications of Artificial Intelligence* (1: 2019)
- ✓ *Engineering Optimization* (2: 2013, 2014)
- ✓ *Entropy* (4: 2011, 2012, 2013x2)
- ✓ *Environmental Impact Assessment Review* (1: 2023)
- ✓ *Environment, Development and Sustainability* (1: 2019)
- ✓ *Environment, Systems and Decisions* (6: 2012, 2013, 2015, 2017, 2022x2)
- ✓ *Environmental Impact Assessment Review* (3: 2020, 2022x2)
- ✓ *Environmental Research* (3: 2019, 2020x2)
- ✓ *ETRI Journal* (1: 2019)
- ✓ *EURO Journal on Decision Processes* (4: 2015x2, 2016, 2017)
- ✓ *European Journal for Security Research* (1: 2019)
- ✓ *European Journal of Operational Research* (65: 2008x3, 2009x5, 2010x6, 2011x3, 2012x4, 2013x5, 2014x2, 2015x8, 2016x9, 2017x5, 2018x4, 2019x7, 2020x2, 2021x3, 2022x4)
- ✓ *Expert Systems with Applications* (2: 2013, 2021)
- ✓ *Fire Safety Journal* (2: 2019x2)
- ✓ *Flexible Services and Manufacturing Journal* (2: 2018, 2019)
- ✓ *Frontiers in Public Health* (1: 2022)
- ✓ *Frontiers of Information Technology & Electronic Engineering* (1: 2018)
- ✓ *Future Internet* (1: 2016)
- ✓ *Games and Economic Behavior* (2: 2008, 2009)
- ✓ *Habitat International* (1: 2016)
- ✓ *Harvard Kennedy School Misinformation Review* (2: 2020x2)
- ✓ *Health Care Management Science* (3: 2012, 2013x2)
- ✓ *Human Communication Research* (1: 2020)
- ✓ *Human Factors and Ergonomics in Manufacturing* (1: 2008)
- ✓ *Humanities & Social Sciences Communications* (1: 2023)
- ✓ *IEEE Access* (2: 2017, 2018)
- ✓ *IEEE Systems Journal* (1: 2020)
- ✓ *IEEE Transactions on Aerospace and Electronic Systems* (2: 2020, 2021)

- ✓ *IEEE Transactions on Automation Science and Engineering* (2: 2010, 2011)
- ✓ *IEEE Transactions on Computational Social Systems* (6: 2018x2, 2019x2, 2020x2)
- ✓ *IEEE Transactions on Cybernetics* (4: 2017x2, 2018x2)
- ✓ *IEEE Transactions on Engineering Management* (6: 2014, 2015, 2016, 2017, 2018, 2020, 2021)
- ✓ *IEEE Transactions on Industrial Informatics* (1: 2019)
- ✓ *IEEE Transactions on Information Forensics & Security* (6: 2016x3, 2017x2, 2018x2)
- ✓ *IEEE Transactions on Reliability* (9: 2010, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2020)
- ✓ *IEEE Transactions on Systems, Man and Cybernetics: Systems* (5: 2014, 2015x3, 2017)
- ✓ *IISE Transactions* (21: 2010, 2011x3, 2012, 2013x3, 2014x4, 2015x2, 2018, 2019, 2020x3, 2022x2)
- ✓ *Industrial Engineering & Management* (1: 2012)
- ✓ *Industrial Management & Data Systems* (2: 2016, 2020)
- ✓ *Information* (2: 2022x2)
- ✓ *Information Processing and Management* (3: 2020x2, 2022)
- ✓ *Information, Communication & Society* (1: 2019)
- ✓ *INFORMS Journal on Computing* (7: 2009x2, 2012x2, 2015, 2016, 2017)
- ✓ *International Game Theory Review* (3: 2009, 2010, 2021)
- ✓ *International Journal of Conflict and Violence* (2: 2018x2)
- ✓ *International Journal of Control* (3: 2015, 2016x2)
- ✓ *International Journal of Critical Infrastructure Protection* (6: 2019, 2020, 2021x2, 2022x2)
- ✓ *International Journal of Disaster Risk Reduction* (6: 2016x2, 2017, 2018x2, 2019)
- ✓ *International Journal of Distributed Sensor Networks* (1: 2019)
- ✓ *International Journal of Information Technology & Decision Making* (1: 2009)
- ✓ *International Journal of Operations Research and Information Systems* (8: 2010x2, 2011x2, 2012x3, 2013)
- ✓ *International Journal of Sport Management and Marketing* (1: 2013)
- ✓ *International Journal of Performability Engineering* (2: 2007x2)
- ✓ *International Journal of Production Research* (2: 2017, 2019)
- ✓ *International Symposium on Data, Privacy, and E-Commerce* (4: 2010x4)
- ✓ *International Transactions on Electrical Energy Systems* (1: 2017)
- ✓ *International Transactions in Operational Research* (5: 2014, 2015, 2019x2, 2020)
- ✓ *Journal of Advanced Transportation* (2: 2018x2)
- ✓ *Journal of Agricultural Safety and Health* (1: 2007)
- ✓ *Journal of Applied Communication Research* (1: 2018)
- ✓ *Journal of Applied Mathematics* (1: 2014)
- ✓ *Journal of Business Research* (3: 2020, 2021, 2022)
- ✓ *Journal of Cleaner Production* (2: 2020x2)
- ✓ *Journal of Community Psychology* (1: 2019)
- ✓ *Journal of Contingencies and Crisis Management* (1: 2019)
- ✓ *Journal of Control and Decision* (1: 2017)
- ✓ *Journal of Cybersecurity* (1: 2019)
- ✓ *Journal of Defense Modeling and Simulation* (1: 2013)
- ✓ *Journal of Engineering* (1: 2012)
- ✓ *Journal of Engineering Manufacture* (3: 2013, 2014, 2016)
- ✓ *Journal of Experimental Psychology: Applied* (1: 2015)
- ✓ *Journal of Geography and Regional Planning* (1: 2013)
- ✓ *Journal of Homeland Security and Emergency Management* (2: 2018, 2019)
- ✓ *Journal of Information Security and Applications* (5: 2017x2, 2018, 2019x2)
- ✓ *Journal of Information Technology & Politics* (1: 2019)
- ✓ *Journal of Infrastructure Systems* (6: 2011x3, 2012x2, 2014)

- ✓ *Journal of Integrated Security and Safety Science* (1: 2021)
- ✓ *Journal of Loss Prevention in the Process Industries* (5: 2010x3, 2016x2)
- ✓ *Journal of Mechanical Engineering Science* (2: 2013, 2014)
- ✓ *Journal of Mountain Science* (1: 2017)
- ✓ *Journal of Network and Computer Applications* (1: 2020)
- ✓ *Journal of Network and Systems Management* (4: 2016, 2017x3)
- ✓ *Journal of Optimization Theory and Applications* (2: 2012, 2013)
- ✓ *Journal of Peace Research* (3: 2009, 2011, 2013)
- ✓ *Journal of Policing, Intelligence and Counter Terrorism* (1: 2015)
- ✓ *Journal of Quality in Maintenance Engineering* (1: 2016)
- ✓ *Journal of Risk and Reliability* (11: 2008x4, 2009x2, 2010x3, 2011, 2022)
- ✓ *Journal of Risk Research* (3: 2010x2, 2017)
- ✓ *Journal of Sports Economics* (1: 2017)
- ✓ *Journal of Systems and Control Engineering* (1: 2017)
- ✓ *Journal of Systems Science and Systems Engineering* (1: 2012)
- ✓ *Journal of the Operational Research Society* (18: 2010x3, 2011x2, 2012, 2013x2, 2014, 2015x2, 2016x3, 2017, 2018, 2019x2)
- ✓ *Knowledge-Based Systems* (5: 2009, 2011x2, 2013x2)
- ✓ *Land Use Policy* (1: 2013)
- ✓ *Management Decision* (4: 2017x2, 2018, 2019)
- ✓ *Management Science* (6: 2010, 2014x2, 2015, 2016, 2020)
- ✓ *Manufacturing and Service Operations Management* (3: 2018, 2019, 2022)
- ✓ *Mathematica Pannonica* (1: 2012)
- ✓ *Mathematical Methods of Operations Research* (1: 2012)
- ✓ *Mathematical Problems in Engineering* (3: 2012, 2016, 2019)
- ✓ *Military Operations Research* (1: 2019)
- ✓ *Naval Research Logistics* (1: 2010)
- ✓ *Natural Hazards* (6: 2015, 2016, 2017x2, 2018, 2019)
- ✓ *Natural Hazards Review* (4: 2019x2, 2020x2)
- ✓ *Neural Computing and Applications* (1: 2016)
- ✓ *Ocean and Coastal Management* (1: 2021)
- ✓ *Omega* (4: 2012, 2019x3, 2021)
- ✓ *Operational Research* (1: 2017)
- ✓ *Operations Research* (19: 2007, 2009x2, 2010x2, 2011, 2012x2, 2014, 2015, 2016x2, 2017, 2018x4, 2019x2)
- ✓ *Operations Research and Decisions* (4: 2014, 2019x2, 2020)
- ✓ *Optimization* (1: 2014)
- ✓ *Oxford Economic Papers* (2: 2014x2)
- ✓ *Physica A* (6: 2018x2, 2019x2, 2022, 2023)
- ✓ *PLOS ONE* (3: 2017, 2022, 2023)
- ✓ *Policy Studies* (1: 2018)
- ✓ *Production and Operations Management* (8: 2015, 2016x2, 2021x2, 2022x4)
- ✓ *Process Integration and Optimization for Sustainability* (1: 2017)
- ✓ *Reliability Engineering & System Safety* (32: 2007, 2008x2, 2009, 2010x2, 2014, 2016x2, 2017x3, 2018x5, 2019x6, 2020x3, 2021x5, 2022x2)
- ✓ *Revista de la Real Academia de Ciencias Exactas, Fsicas y Naturales. Serie A. Matemticas* (1: 2021)
- ✓ *Risk Analysis* (90: 2006x2, 2007, 2008x2, 2009, 2010x8, 2011x5, 2012x2, 2013x4, 2014x7, 2015x10, 2016x6, 2017x8, 2018x9, 2019x6, 2020x10, 2021x3, 2022x10, 2023x2)
- ✓ *Safety* (1: 2018)
- ✓ *Sage Open* (2: 2018, 2019)
- ✓ *Science of the Total Environment* (2: 2020x2)

- ✓ *Scientific Reports* (1: 2022)
- ✓ *Sensors* (8: 2012, 2015, 2016x4, 2017, 2018)
- ✓ *Service Science* (2: 2017x2)
- ✓ *Social Network Analysis and Mining* (2: 2021, 2022)
- ✓ *Social Networks* (1: 2019)
- ✓ *SN Applied Sciences* (1: 2019)
- ✓ *SN Operations Research Forum* (2: 2019, 2020)
- ✓ *Social Sciences* (1: 2018)
- ✓ *Socio-Economic Planning Sciences* (4: 2010, 2012, 2013, 2014)
- ✓ *Social Media and Society* (1: 2022)
- ✓ *Software: Practice and Experience* (2: 2019x2)
- ✓ *Stochastic Environmental Research and Risk Assessment* (3: 2010, 2011, 2012)
- ✓ *Stochastic Systems* (1: 2020)
- ✓ *Sustainability* (1: 2018)
- ✓ *Sustainable Cities and Society* (1: 2021)
- ✓ *Symmetry* (2: 2018x2)
- ✓ *The B.E. Journal of Economic Analysis & Policy* (1: 2011)
- ✓ *The Engineering Economist* (1: 2012)
- ✓ *The Social Science Journal* (2: 2012x2)
- ✓ *Transportation Research Part C* (6: 2016x2, 2017x2, 2018, 2019)
- ✓ *Transportation Research Part E* (1: 2017)
- ✓ *Transportation Research Part F* (1: 2013)
- ✓ *Transportation Science* (1: 2015)
- ✓ *Transportmetrica B: Transport Dynamics* (1: 2018)
- ✓ *Travel Behaviour and Society* (1: 2021)
- ✓ *Wiley Encyclopedia of Operations Research and Management Science* (1: 2010)
- ✓ *Wireless Communications and Mobile Computing* (1: 2018)
- ✓ *World Wide Web* (1: 2018)

Conference Organizing and Review Services:

- Steering Committee, The Future of Risk Research for Homeland Security: An Interdisciplinary Workshop, Washington, D.C., May 16-17, 2022
- Interactive/Poster Session Chair for 2022 INFORMS Annual Meeting
- Conference Committee, 2022 INFORMS Annual Meeting.
- Co-Chair: Second Conference on Risk Analysis, Decision Analysis and Security, Buffalo/Niagara Falls, NY, July 30-August 2, 2019.
- Co-Chair: International Conference on Risk Analysis, Decision Analysis and Security, Tsinghua University, Beijing, China, July 21-23, 2017.
- Co-Chair: Second conference on Validating Models of Adversary Behavior, Buffalo/Niagara Falls, NY, August 2-5, 2015.
- Co-Chair: First conference on Validating Models of Adversary Behavior, Buffalo/Niagara Falls, NY, June 23-26, 2013.
- Track Chair (Security Engineering): IISE Annual Conference, 2019
- Track Chair (Homeland Security and Disaster Management): INFORMS International Meeting, 2016

- Track Chair (Homeland Security): Industrial and Systems Engineering Research Conference 2015
- Track Chair (Service Systems): Industrial and Systems Engineering Research Conference 2014
- Track Chair (Homeland Security): Industrial and Systems Engineering Research Conference 2013
- Track Chair (Homeland Security): Industrial Engineering Research Conference 2009
- Program Committee for the Second International Symposium on Data, Privacy, and E-Commerce (ISDPE 2010)
- Program Committee for the Workshop on Behavioral, Economic and Computational Intelligence for Security, 2015.
- Program Committee, Track of Homeland Security and Emergency Response, 2014 Winter Simulation Conference.
- Program Committee for GameSec 2022 (13rd Conference on Decision and Game Theory for Security).
- Program Committee for GameSec 2021 (12th Conference on Decision and Game Theory for Security).
- Program Committee for GameSec 2020 (11th Conference on Decision and Game Theory for Security).
- Program Committee for GameSec 2019 (10th Conference on Decision and Game Theory for Security).
- Program Committee for GameSec 2018 (9th Conference on Decision and Game Theory for Security).
- Scientific Committee of the 2019 Advances in Decision Analysis (ADA 2019)
- Publicity Chair for GameSec 2017 (8th Conference on Decision and Game Theory for Security).
- Program Committee for GameSec 2017 (8th Conference on Decision and Game Theory for Security).
- Program Committee for GameSec 2016 (7th Conference on Decision and Game Theory for Security).
- Program Committee for GameSec 2015 (6th Conference on Decision and Game Theory for Security).
- Program Committee for GameSec 2012 (3rd Conference on Decision and Game Theory for Security).
- Program committee for SRA Annual conference (2016).

- Program committee for the conference "New Ideas for Risk Regulation," Washington, D.C., June 22-23, 2009

- Ad-hoc Reviewer: I have reviewed **20** (2009x2, 2010, 2011, 2012x11, 2012x2, 2014x2, 2018, 2020x2, 2022x2) articles for **6** conference proceedings:
  Conference on Decision and Game Theory for Security (3: 2012x3)
  Conference on Decision and Game Theory for Security (3: 2012x3)
  International Conference of Chinese Transportation Professionals (1: 2011)
  International IEEE Annual Conference on Intelligent Transportation Systems (1: 2012)
  Proceedings of the Industrial Engineering Research Conference (8: 2009x2, 2010, 2012x4, 2018, 2020x2, 2022x2)
  Proceedings of the 2014 Winter Simulation Conference (2: 2014x2)

Service to Professional Organizations:

- Decision Analysis Society (DAS): Membership Committee (2007-2008); Membership Committee co-chair (2015-2016, 2016-2017) Student Paper Award Committee (2009, 2014); Session Chair for annual meetings (2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019); Co-Chair, Student Paper Award Committee (2011, 2012, 2013); Co-editor for *Decision Analysis Today* (The official newsletter for the DAS: 2011-2016); Research column editor for *Decision Analysis Today* (2011); Elected Council Member (2013-2016); Coffee with a DAS member volunteer (2018); Scientific Committee of the 2019 Advances in Decision Analysis (ADA 2019); Planning Committee of the 2022 Advances in Decision Analysis (ADA 2022); Ph.D. Incubator Committee of the 2022 Advances in Decision Analysis (ADA 2022); DAS Diversity, Equity, and Inclusion (DEI) Committee Chair (2021-2022); DAS DEI Committee Past-Chair (2022-2023); DAS Cluster Co-Chair for INFORMS Annual Meetings (2021-2022; 2022-2023). DAS Membership Committee Co-Chair (2022-2023).

- INFORMS Magazine Editorial Advisory Board (MEAB), 1/1/2023-12/31/2024

- INFORMS Speakers Program, 2017-present

- 2022 INFORMS Annual Meeting Planning committee

- Interactive/Poster Session Chair for 2022 INFORMS Annual Meeting, 2020-2022

- INFORMS JFIG (Junior Faculty Interest Group) Paper Competition Reviewer, 2018, 2020

- INFORMS: Member-Get-a-Member Recruiter (2008, 2009, 2010, 2011, 2012, 2013, 2014)

- INFORMS Poster Competition, judge (2014)

- INFORMS Section on Public Programs, Services and Needs: Best Paper Competition Committee (2012)

- Faculty Advisor, INFORMS UB Student Chapter, 2011-2015

- Society for Risk Analysis (SRA): SRA Program Planning Committee (2022-2025); Mentor, SRA's Mentorship program (2018, 2019, 2020); Chair-elect/Chair/past- chair, Security and Defense Specialty Group (2014-2017); Program committee for SRA Annual conference (2016); Secretary/Treasurer, Economics and Benefits Analysis Specialty Group (2008-2009); Program committee for the conference New Ideas for Risk Regulation, Washington, D.C., June 22-23, 2009

- Institute of Industrial and Systems Engineers (IISE): U.S. Northeast Region Vice President (2022-present); Elected Board of Directors, IISE Operations Research Division (2022-2024); Mentor, IISE inaugural Future Faculty Fellows (3F) program (2021-2022); IISE Annual Conference Track Chair (IERC 2009, IERC 2013, ISERC 2014, ISERC 2015, ISERC 2016, ISERC 2019); Session Chair (IERC 2009, IERC 2010); Publications Award Committee for *IIE Transactions* (2014) Associate Editor for IISE Transactions (2020-present)

- International Community on Information Systems for Crisis Response and Management (ISCRAM): Ph.D. Colloquium Mentor, 2012

XI. B Services to University at Buffalo

- Committee member, 2022-2023 Outstanding Ph.D. Dissertation Award
- UB Faculty Focus Group member, University Police Advisory Committee
- CSTEP faculty advisor (since 2009);
- CSTEP Connect Advisor, Fall 2020 -
- Participant, UB Care Calling Campaign, June 2020
- Member, UB Non-native English Speaker Task Force committee, Spring 2020-Fall 2020
- UB Graduate Schools Network for Enriched Academic Relationships (NEAR) mentor, 2020-present.
- SEAS Senator for the UB Faculty Senate, 2019-2021
- Host Family, Thanksgiving Without Borders program, 2016, 2017, 2018, 2019
- Chair, Committee for the 2017 Center for Geohazads Studies Student Research Award competition, 2017.
- Member, Advisory Group for the UB's Center for Geohazads Studies, 2013-present
- Member, Award Selection Committee for the 2014 President Emeritus and Mrs. Meyerson Award for Distinguished Undergraduate Teaching and Mentoring, 2013-2014.
- Faculty Advisor, INFORMS University at Buffalo Student Chapter, 2011-2015.
- Judge, University at Buffalo Sigma Xi Research Day and Poster Competition: April 6, 2011 and April 5, 2012.
- Invited speaker, invited by the Society of Hispanic Professional Engineers, University at Buffalo Student Chapter on February 24, 2011.
- Invited speaker, National Grid Leadership Engineering Camp, July 31, 2012 and July 30, 2013.
- Invited speaker, University at Buffalo Science & Technology Enrichment Program (STEP), Summer Camp, July 1, 2012.
- Invited speaker at Western New York Maritime Charter School, organized by UB's Society of Hispanic Professional Engineers, March 28, 2011.
- Invited panelist for "Cultivating Professionalism in the Engineering Classroom: Applicability to Other Disciplines?," UB Genteels' Excellence in Teaching Conference: Strategies to Maximize Student Engagement, March 21, 2010.
- Invited panelist for "What's so Exciting about Science, Technology, Engineering, and Mathematics (STEM)," UB's Passport STEM 2009 Summer Programs, August, 2009

XI. C Services to School of Engineering and Applied Sciences (SEAS)

- Chair, SEAS Full Professor Promotion Committee, 9/2022-now
- Member, Review Committee for the SEAS Dean's Award for Achievement, 2021
- SEAS Senator for the UB Faculty Senate, 2019-2021
- Member, SEAS Qualified Rank Promotions Committee, 9/2019-8/2020
- Member, SEAS Full Professor Promotion Committee, 9/2019-8/2020
- Member, SEAS Faculty Awards Committee, 2013-2014; 8/2018-8/2020
- Member, SEAS Tenure Committee, 1/2018-5/2019
- Alternate Member, SEAS Full Professor Promotion Committee, 1/2019-8/2019
- Alternate Member, SEAS Tenure Committee, 8/2014-5/2015; 8/2017-1/2018
- Participant, Faculty Call Program, Spring 2018, Spring 2019
- Faculty Marshal, UB Engineering Commencement: 2009, 2011, 2012, 2014
- Junior Faculty Panelist, UB Engineering Future Faculty Workshop, May 11, 2009
- Faculty Search Committee on Extreme Events, 2009-2010
- Judge for SEAS Poster Competition, April 7, 2010

XI. D Departmental Service

- Director, ISE Graduate Studies (1/2021-present)
- Member, ISE Academic Coordinator Search Committee (2021-2022)
- Member, ISE Advancement Committee (9/2020-present)
- Acting Department Chair (3/29/2021-4/12/2021)
- Member, ISE Grad Affairs Committee (8/2020-1/2021)
- Chair, ISE 75th anniversary planning committee (1/2020-12/2020)
- Chair, ISE Faculty Awards Committee (8/2018-8/2020)
- Coordinator, ISE Faculty Brown Bag Seminar (8/2018-8/2020)
- Chair, ISE Strategic Planning Committee on Infrastructure Development (8/2018-8/2019)
- Chair, ISE Faculty Search Committee (2019-2020)
- Chair, ISE Strategic Planning Committee on Department Reputation and Pride (8/2018-8/2019)
- Member, ISE Strategic Planning Committee on Faculty and Staff Recruitment, Support and Retention (8/2018-5/2019)
- Director, ISE Undergraduate Studies (8/2015-1/2018)
- Chair, ISE Teaching Labs Committee (8/2015-1/2018)
- Chair, ISE ABET/UG Affairs Committee (8/2015-1/2018)
- Chair, ISE Instructor Search Committee (2016-2017)
- Chair, ISE Faculty Search Committee (2015-2016)
- Member, ISE Academic Coordinator Search Committee (2017)
- Member, ISE Faculty Search Committee (2013-2014)
- Member, ISE Graduate Admissions and Affairs Committee (2008-2013)
- Member, ISE Awards Committee (2012-2014)
- Coordinator, ISE Seminar (2009-2010)
- Coordinator, ISE Poster Competition (2010, 2011)
- Coordinator, ISE Safety (2011-2012)
- ISE Facebook Page Founder and Manager (2010-present)
- Volunteering Photographer for ISE events (2008-present)

XI. E Guest Lecturer

- World Religion, Houghton College, 2022
- EAS 199, Grand Challenges for Engineering, UB, 2016, 2017
- IE 101, Discover Industrial and Systems Engineering, UB, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022
- GLY 428, Geologic Hazards and Risk, UB, April 4, 2011
- PIA 2101, Managing Threats, Emergencies, and Disasters, Graduate School of Public and International Affairs, University of Pittsburgh, January 31, 2011
- GLY 428, Geologic Hazards and Risk, UB, March 1, 2010
- IE 101, Discover Industrial and Systems Engineering, UB, April 5, 2010
- GLY 428, Geologic Hazards and Risk, UB, April 8, 2009
- IE 101, Discover Industrial and Systems Engineering, UB, April 6, 2009
- ISyE 624, Stochastic Modeling Techniques, University of Wisconsin-Madison, Spring 2008
- Management Science & Engineering Specialty Course, Nanjing University, China, Spring 2007
- ISyE 691, Quantitative Methods in Supply Chain Design & Production Planning, UW-Madison, Spring 2007
- ISyE 516, Introduction to Decision Analysis, University of Wisconsin-Madison, Spring 2007

XI. F Tutor

- Math 234, Calculus–Functions of Several Variables, University of Wisconsin-Madison, Fall 2005
- Madison West High School, Spring 2007

XI. G Other Professional Service and Activities

- Reviewer for *PERISHIP Dissertation Fellowship in Hazards, Risk, and Disasters*, 2012
- Article Editor for a *SAGE Open*, 2017, 2018, 2019
- Reviewer for a book proposal, Wiley, 2020
- Reviewer for a book proposal, Wiley, 2019
- Reviewer for a book proposal, Taylor & Francis Group, 2019
- Reviewer for a book proposal, Taylor & Francis Group, 2019
- Reviewer for a book proposal, Bentham Science, 2018
- Reviewer for a book proposal, Springer, 2018
- Reviewer for a book proposal, Springer, 2016
- Reviewer for a book chapter in *Humanitarian & Relief logistics: Research issues, case studies and future trends*, Springer, New York, 2011
- Reviewer for a book chapter in *Recent Advances in System Reliability: Signatures, Multi-state Systems and Statistical Inference*, Springer, New York, 2010
- Reviewer for Peccei and Mikhalevich Awards for Young Scientists Summer Program (YSSP), International Institute for Applied Systems Analysis (IIASA), 2010
- Certificate of Training, Department of Homeland Security IED Awareness/Bomb Threat Management Workshop, June 2012
- Session Chair for Agricultural & Applied Economics Association Annual Meeting, 2004

XI. H Services to Local Communities

- Houghton College: Elected board member of Houghton College Board of Trustees (2021-2025).
- Elected board member of the District Board of Administration (DBA) of the Western New York (WNY) District of the Wesleyan Church (overseeing and supporting 38 Wesleyan churches in WNY with about 6,000 members): 2014-2016; 2016-2018; 2018-2021; 2021-2023 (DBA Executive Committee member, 7/2015-7/2020; Assistant District Treasurer, 3/2017-12/2020; General Conference Delegate, 2019-2021; 2021-2023; Task Force on Racism, 2022-2023; Task Force on Church Security, 2022-2023).
- Eastern Hills Wesleyan Chinese Church (2008-present): Elected Deacon (2019-2021); the General Coordinator of the leadership team (2014-2016); worship team coordinator (2010-2014); other regular services include: mission committee coordinator; prayer meeting coordinator; pastor search committee; translator; special events coordinator; fellowship/small group leader; bible study leader; audio/video; email/website/social media coordinator; pianist.
- Eastern Hills Church (2008-present): Father/Daughter Dance Committee (2019-2020)
- Buffalo Business First's Young Leaders Panel (2020-present)
- Bridges From Borders (BFB): Mentor for the Mental Health Advocacy Program (2020-present)
- Buffalo City Mission (2019): Turkey Express volunteer for Thanksgiving Day (2019)
- Upstate New York Memorial Day Annual Retreat (attended by 250-300 people from 6-7 Chinese churches/groups): Planning Committee Member (2014-present); Worship Team Leader (2015-present); Worship Team Coordinator (2015- 2018); Vice General Coordinator (2018-2019); General Coordinator (2019-2022).