

## JUDITH MITRANI-REISER

Johns Hopkins University  
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### EDUCATION

<b>Ph.D.</b>	<i>California Institute of Technology</i> (2007) Applied Mechanics
<b>M.S.</b>	<i>University of California, Berkeley</i> (2001) Structural Engineering & Mechanics of Materials
<b>B.S.</b>	<i>University of Florida</i> (2000) Civil and Coastal Engineering

### PROFESSIONAL

	<i>Johns Hopkins University, Baltimore, MD</i>
<b>Asst. Prof.</b>	Department of Civil Engineering, Whiting School of Engineering (2010 – Present)
<b>Asst. Prof.</b>	Department of Emergency Medicine, JHMI, Joint Appointment (2014 – Present)
<b>Asst. Res. Prof.</b>	Department of Civil Engineering (2008 – 2010)
<b>Consultant</b>	<i>Utah Department of Health, Bureau of Emergency Management Services &amp; Preparedness</i> Developed materials for assessing loss of functionality of hospitals damaged by natural hazards; administered short workshop to Health Department employees. (2015 – Present) <i>AECOM (formerly URS Corporation)</i> Participated in FEMA MAT team post Hurricane Sandy, and consulted on hurricane losses avoided in code-compliant structures. (2012 – Present) <i>Applied Technology Council (ATC)</i> Consulted on downtime estimation for ATC-58, funded by FEMA to develop the “Next-Generation Performance-Based Seismic Design Guidelines.” (2007 – 2009)
<b>Associate</b>	<i>Center for Refugee and Disaster Response</i> Bloomberg School of Public Health, JHU (2015 – Present)
<b>Visiting Prof.</b>	<i>Pontificia Universidad Católica de Chile, Santiago, Chile</i> Department of Structural and Geotechnical Engineering (Jan 2015)
<b>Postdoc</b>	<i>Johns Hopkins University, Baltimore, MD</i> Department of Civil Engineering with Nicolas P. Jones (2007 – 2008)

### RESEARCH

<b>Areas</b>	<i>Earthquake Engineering</i> <i>Critical Infrastructure</i> <i>Disaster Management</i> <i>Resilience</i>	<i>Community Functioning</i> <i>Risk Assessment</i> <i>Structural Engineering</i> <i>Multi-Hazard</i>	<i>Agent-Based Modeling</i> <i>Health Systems</i> <i>Evacuation Modeling</i> <i>Emergency Preparedness</i>
<b>Funding</b>	<i>Active Projects:</i> <ul style="list-style-type: none"> <li>• <i>Feeding the City in an Uncertain World: Creating Resilient Urban Food Systems in Baltimore and Beyond (co-PI)</i>  <i>JHU's 21<sup>st</sup> Century Cities Initiative</i>, Sept 2015 – Aug 2016, \$39,961            PI: Nieff, JHU, co-PI: Barnett, JHU</li> <li>• <i>RIPS: Quantifying Disaster Resilience of Critical Infrastructure-Based Societal Systems with Emergent Behavior and Dynamic Interdependencies (PI)</i>  <i>National Science Foundation</i>, Sept 2014 – Aug 2017, \$2,500,000            PI: Miller-Hooks, UMD, co-PIs: Green, JHU; Nigg, Delaware; Fisher-Liu, UMD</li> </ul>		

## JUDITH MITRANI-REISER

- Multi-criteria disaster vulnerability assessment: critical infrastructure, human behavior, and public policy **(PI)**  
*National Science Foundation*, Sept 2012 – Aug 2015, \$380,001  
co-PIs: Barnett, JHU-BSPH; Rutkow, JHU-BSPH
- Public Health Systems Preparedness and Emergency Response Research Center (PERRC): Harmonization Project  
*Center for Diseases Control and Prevention*, Sept 2014 – Sept 2015, \$  
PI: Links, JHU-BSPH
- Towards a Community Resilience Index  
*Center for Diseases Control and Prevention*, Sept 2012 – Sept 2015, \$300,000  
PI: Links, JHU-BSPH
- National Research Center for Integrated Natural Disaster Management  
*FONDAP Center of Excellence in Chile*, Sept 2014 – Sept 2017  
PI: Cifuentes, Pontificia Universidad Católica de Chile

### *Completed Projects:*

- Multi-Hazard Scenario Development for Modeling Post-Disaster Behavior of Physical and Human Infrastructures **(PI-subaward)**  
*National Institutes of Health (NIH)*, Jan 2013 – Jun 2013, \$149,996  
PI: Epstein, JHU-JHMI
- Survey and Evaluation of Recent Hospital Evacuations Following Damaging Earthquakes in California, Mexico, and New Zealand **(PI)**  
*California Seismic Safety Commission*, Aug 2011 – Mar 2013, \$38,919  
coPI: Kirsch, JHU-JHMI
- Interfacing Building Models under Earthquake Loading with Human Behavior **(PI-subaward)**  
*Center for Diseases Control and Prevention*, June 2011 – Sept 2011, \$148,600  
PI: Epstein, JHU-JHMI
- NEESR-SG: TIPS - Tools to Facilitate Widespread Use of Isolation and Protective Systems, a NEES/E-Defense Collaboration **(PI-subaward)**  
*Center for Diseases Control and Prevention*, Sept 2014 – Sept 2015, \$  
PI: Ryan, Utah State University
- Modeling Building Downtime due to Hurricane Impacts **(PI)**  
*National Science Foundation*, Jul 2008 – June 2011, \$299,999  
coPIs: Links, JHU-WSE; Guikema, JHU-WSE
- A Decision Support Tool for Open Seismic Risk Assessment Software: Collaborative Research with Johns Hopkins University and USGS **(coPI)**  
*U.S. Geological Survey*, Dec 2007 – Nov 2008, \$62,159  
coPIs: Links, JHU-WSE; Guikema, JHU-WSE

## HONORS AND Awards

*George Housner Fellowship*, Caltech (2002)

*Chancellor's Predoctoral Opportunity Fellowship*, UC Berkeley (2000)

*Florida Scholar*, UF (1996-2000)

*Anderson Scholar*, UF (1998)

## TEACHING

<b>Undergraduate Courses</b>	<p><i>Johns Hopkins University</i> (2010 – Present)</p> <p>560.220 Civil Analysis, Fall 2010, '11, '12, '13, '14, '15</p>
<b>Graduate Courses</b>	<p><i>Johns Hopkins University</i> (2010 – Present)</p> <p>560.630 Structural Dynamics, Fall 2014, Spring 2015, '16</p> <p>560.692 Graduate Seminar in Civil Engineering, Fall 2010, Spring 2011</p> <p>560.752 Structural Dynamics, Spring 2011, '12, Fall 2012</p> <p>560.766 Multi-Hazard Risk Mitigation, Fall 2014</p>
<b>Lecturer</b>	<p><i>Johns Hopkins University</i> (2012 – Present)</p> <p>305.861 Graduate Seminar in Injury Research and Policy, Spring 2015</p> <p>800.644 Topics in Interdisciplinary Medicine, Spring 2015</p> <p>180.670 Intro to Public Health Emergency Preparedness, Spring 2012</p>
<b>Development</b>	<p><i>National Effective Teaching Institute (NETI)</i></p> <p>3-Day Workshop in Vancouver, Canada, June 2011</p> <p>Directors: Rebecca Brent, Richard Felder, Michael Prince</p>
<b>Outreach</b>	<p><i>Johns Hopkins University:</i></p> <ul style="list-style-type: none"> <li>• Preparing Future Faculty Teaching Academy, JHU (Spring 2016) <i>Faculty Mentor</i> of PFFTA Fellow, Guanbo Bian</li> <li>• Teaching Topics and Tapas, JHU (January 2016) <i>Lecturer:</i> Designing Active Learning Exercises</li> <li>• Preparing Future Faculty, University of Nebraska-Lincoln (2015 – 2016) <i>Faculty Mentor</i> of PFF Fellow, Andrea Arguelles</li> <li>• Summer Teaching Institute, JHU (May 2014) <i>Lecturer and Panelist:</i> Course Planning</li> <li>• WSE Education Innovation Seminar, Baltimore, MD (Dec 2011) <i>Lecturer:</i> Contextualizing introductory computation</li> </ul> <p><i>Pre-K – 12:</i></p> <ul style="list-style-type: none"> <li>• JHU's STEM Achievement in Baltimore Elementary Schools (2014 – 2015) <i>Faculty Mentor, John Ruhrah Elementary School</i></li> <li>• Bryn Mawr STEM Summer Internship (June 2014 – Sept 2014) <i>Faculty Mentor</i></li> <li>• Beth Tfiloh Dahan Community Day School (March 2013) <i>Lecturer:</i> The waves under our feet</li> <li>• STEM Internships Convocation, Bryn Mawr School, Baltimore, MD (Nov 2013) <i>Lecturer:</i> Quantifying Societal Impacts &amp; Functional Loss of Building Systems</li> <li>• Yo! Baltimore Tutoring Project, JHU, Baltimore, MD (May 2013) <i>Lecturer:</i> Estimating Loss of Function of Critical Building Systems</li> <li>• Engineering Innovation Summer Program, JHU, Baltimore, MD (2011; 2012) <i>Lab Director:</i> Engineering Economical and Earthquake-Safe Hospitals</li> <li>• Caltech/LEGO Middle School Robotics Conference (2004) <i>Volunteer</i></li> </ul>
<b>Service</b>	<p><i>Johns Hopkins University</i></p> <ul style="list-style-type: none"> <li>• (SABES) STEM Achievement in Balt. Elementary Schools (2012 – Present) <i>Faculty Advisory Board Member</i></li> <li>• (PFFTA) Preparing Future Faculty Teaching Academy (2014 – 2016) <i>Faculty Advisory Board Member</i></li> <li>• (GSI) Gateway Sciences Initiative: The Active Learning eStudio Project (2012) <i>Faculty Participant in Design and Use of eStudio</i></li> </ul>

## MENTORSHIP

<b>Postdoc Advisor</b>	<i>Post-doctoral Scholars</i> <ul style="list-style-type: none"> <li>• Mike Mieler (2014 – Present)</li> <li>• Gonzalo Pita (2012 – 2014)</li> </ul>
<b>PhD</b>	<i>Graduate Students, PhD</i> <ul style="list-style-type: none"> <li>• Fardad Haghpana, PhD Candidate, expected graduation Spring 2019</li> <li>• Xilei Zhao, PhD Candidate, expected graduation Spring 2018</li> <li>• Megan Boston, PhD Candidate, expected graduation Spring 2017</li> <li>• Caitlin Jacques, PhD Candidate, expected graduation Spring 2016</li> <li>• Zhang Liu, PhD Candidate, expected graduation Spring 2016</li> </ul>
<b>MS</b>	<i>Graduate Students, MSE (Coursework only):</i> <ul style="list-style-type: none"> <li>• Xinyi Lin (2013)</li> <li>• Claire Li (2011)</li> </ul>
<b>Visiting Scholars</b>	<i>Visiting Graduate Students:</i> <ul style="list-style-type: none"> <li>• Felipe Tocornal, MS Candidate at Universidad Católica de Chile (2014)</li> <li>• Alan Polous, MS Candidate at Universidad Católica de Chile (2014)</li> <li>• Gonzalo Pita, PhD Candidate at Florida Inst. of Technology (2009)</li> </ul>
<b>Undergraduate Researchers</b>	<i>Undergraduate Student Researchers:</i> <ul style="list-style-type: none"> <li>• Stephen Wong, JHU (B.S. 2015)</li> <li>• Kara Mahoney, George Mason University (B.S. 2014)</li> <li>• Linnea Cripe (B.S. 2014)</li> <li>• Amory Martin (B.S. 2014)</li> <li>• Jason Adelstein, Princeton University (B.S. 2014)</li> <li>• Majid, Jaidi, JHU (B.S. 2013)</li> <li>• Meagan Young (B.S. 2012)</li> <li>• Erin Kelly (B.S. 2012)</li> <li>• Peter Wildfeuer (B.S. 2011)</li> </ul>
<b>Outreach</b>	<i>Johns Hopkins University:</i> <ul style="list-style-type: none"> <li>• Homewood Postdoctoral Retreat (April 2015) Panelist: <i>Academic Careers</i></li> <li>• Homewood Postdoctoral Association (Dec 2014) Moderator: <i>Careers at Primarily Undergraduate Institutions</i></li> <li>• Annual Hopkins Postdoc Retreat (May 2014) Panelist: <i>Specific Aims 101</i></li> <li>• Professional Development Day for Grad. Students and Postdocs (Dec 2011) Presentation: <i>Academic Career Tracks: Science and Engineering</i></li> <li>• Professional Development Workshop (May 2011) Presentation: <i>Application and Interviewing in the Sciences and Engineering</i></li> <li>• Johns Hopkins Workshop on NSF Grant Writing (April 2010) Presentation: <i>Writing a successful NSF proposal</i></li> </ul>
<b>Service</b>	<i>Johns Hopkins University</i> <ul style="list-style-type: none"> <li>• (SHPE) Society of Hispanic Professional Engineers (2010 – Present) <i>Faculty Advisor</i></li> <li>• (HWPDA) Homewood Post-doctoral Association (2007 – 2010) <i>Founder and Faculty Advisor</i></li> </ul>

## PROFESSIONAL SERVICE

<b>Disaster Fieldwork</b>	<i>EERI Learning from Earthquakes (LFE) Program</i> Gorkha Earthquake, Nepal (Hospital Team Lead, June 2015) Christchurch Earthquake, New Zealand (Hospital Team Lead, March 2011) Maule Earthquake, Chile (Hospital Team Lead, March 2010)
	<i>FEMA Mitigation Assessment Team</i> Hurricane Sandy (Hospital Team Lead, December 2012)
	<i>California Seismic Safety Commission Team</i> Baja California Earthquake (March 2011)
	<b>Technical Committees</b> <i>American Society of Civil Engineers – Structural Engineering Institute (ASCE-SEI)</i> Multi-Hazard Risk Mitigation Committee, Secretary (2010 – Present) Disaster Resilience Committee, Member (2012 – Present)
<b>Professional Committees</b>	<i>Earthquake Engineering Research Institute (EERI)</i> Learning from Earthquakes Committee, Member (2012 – Present)
	<i>Federal Emergency Management Agency</i> P-942: Mitigation Ass. Report: Hurricane Sandy, Main Comm. Member (2012 – 2013) P-58: Seismic Performance Assess. of Buildings, Main Comm. Member (2007 – 2009)
	<i>Earthquake Engineering Research Institute (EERI)</i> Initiatives Development Committee (2015 – Present) Publications Committee (2011 – Present) National Capital Chapter, Vice President (2011 – 2014) Public Policy Committee, Member (2010 – 2014)
	<i>American Society of Civil Engineers – Structural Engineering Institute (ASCE-SEI National Capital</i> SEI Young Professionals Committee, Member (2011 – 2014)
<b>Associate Editor</b>	<i>American Society of Civil Engineers</i> Natural Hazards Review (2010 – Present)
<b>Proposal Panels</b>	<i>National Science Foundation</i> Hazard SEES (2015); CAREER (2013); CMMI (2012), CAREER (2010); IMEE (2009)
	<i>U.S. Geological Survey</i> Earthquake Effects (2012; 2008; 2007)
	<i>National Academies of Science/USAID</i> Partnerships for Enhanced Engagement in Research (PEER) Science (2014)
	<b>Meeting &amp; Workshop Organization</b> <i>National Conference on Earthquake Engineering, Anchorage, AK</i> Proceedings Committee, Co-Chair (2012 – 2014) Technical Committee, Member (2013 – 2014)
<b>Meeting &amp; Workshop Organization</b>	<i>EERI Annual Meeting &amp; National Earthquake Conference, New Orleans, LA</i> Organizing Committee (2011)
	<i>Workshop on Vulnerable Pop., Comm. Resilience &amp; Health System Impact, Baltimore, MD</i> Workshop Chair (2012)
	<i>Chile Earthquake Research Needs Workshop, NSF, Arlington, VA</i> Organizing Committee (2010)

## JUDITH MITRANI-REISER

<b>Journal Reviewer</b>	Earthquake Spectra	Journal of Env. Research and Public Health
	Earthquake Eng. & Structural Dynamics	Structures and Buildings
	Natural Hazards Review	Computers and Geosciences
	Journal of Structural Engineering	Georisk
	Risk Analysis	
<b>Professional Associations</b>	(ASCE) <i>American Society of Civil Engineers</i> , Member (1998 – Present)	
	(EERI) <i>Earthquake Engineering Research Institute</i> , Member (2001 – Present)	
	(SRA) <i>Society for Risk Analysis</i> , Member (2009 – Present)	
	(WADDEM) <i>World Assoc. for Disaster and Emergency Medicine</i> , Member (2012 – Present)	
	(SSA) <i>Seismological Society of America</i> , Member (2013 – Present)	

## INTERNAL (JOHNS HOPKINS UNIVERSITY) SERVICE

<b>Undergraduate Academic Advisor</b>	<i>Major Civil Engineering Class of 2015</i> (2011 – 2015) Advisor for the 9 students in the 2015 class.
	<i>Minor Civil Engineering Class of 2015</i> (2011 – 2015) Advisor for the 2 students in the 2015 class.
	<i>General Engineering Students</i> : 2012 (3)
<b>Service Activities</b>	<i>Johns Hopkins University</i> <ul style="list-style-type: none"> <li>(SSEI) Student Services Excellence Initiative, Provost Office (2016 – ) <i>Steering Committee Member</i></li> <li>(E2SHI) Environment, Energy, Sustainability, and Health Inst. (2015 – ) <i>Executive Committee Member</i></li> <li>WSE National Advisory Council Meeting (2014) <i>Faculty Panelist</i></li> <li>Geospatial Sciences Teaching and Research Focus Group (2010 – 2014) <i>Faculty Member</i></li> <li>Johns Hopkins University Admissions Open House (2013) <i>Presentation: Learning from Katrina and Superstorm Sandy: Building Resilience</i></li> <li>Johns Hopkins University Family Weekend (2012) <i>Presentation: Earthquake Engineering and Public Health Emergency Preparedness</i></li> <li>Homewood Associates Luncheon (2012) <i>Faculty Participant</i></li> <li>Faculty-Student Interaction Programs (2011; 2012; 2013) <i>Faculty Participant</i></li> <li>Search Committee for Assistant Dean for Engineering Education Outreach (2010) <i>Search Committee Member</i></li> </ul>
	<i>Department of Civil Engineering</i> <ul style="list-style-type: none"> <li>Faculty Search Committees <i>MoM Search (2015); Structures Search (2013); SI Search (2012)</i></li> <li>Committee of Graduate Admissions <i>Chair (2015 – Present)</i></li> <li>Committee of Student Recruitment <i>Chair (2010 – 2013), Member (2010 – Present)</i></li> <li>Committee of Undergraduate Education <i>Member (2010 – 2015)</i></li> </ul>
	<i>Center for Refugees and Disaster Response</i>
	<i>Environment, Energy, Sustainability, and Health Institute</i>
	<i>Systems Institute</i>
	<i>Water Institute</i>
<b>Institutes &amp; Centers</b>	

# JOURNAL PUBLICATIONS

<b>Submitted/ Under Revision</b>	<b>Bold font indicates STIRM research group member.</b>
	<p>(-- ) Poulos, A., Tocornal, F., de la Llera, J.C., and Mitrani-Reiser, J. "Agent-based modeling of an evacuation process in a K-12 school in Iquique, Chile." <i>PLoS ONE</i> (submitted 15 January 2016).</p> <p>(-- ) Mieler, M.W. and Mitrani-Reiser, J. "Mitigating multi-scale earthquake impacts: A review of the state-of-the-art in assessing loss of functionality in buildings." <i>Journal of Structural Engineering</i> (submitted 08 January 2016).</p> <p>(-- ) De la Llera, J. C., Rivera, F., Mitrani-Reiser, J., Jünemann, R., and Ríos, M. "Data Collection after the 2010 Maule earthquake in Chile." <i>Bulletin of Earthquake Engineering</i> (submitted 31 March 2015).</p>
<b>Published/ In Press</b>	<p>(12) <b>Mieler, M.W.</b>, Uma, S.R., and <b>Mitrani-Reiser, J.</b> "Using Failure Analysis to Establish Seismic Resilience Objectives for Building Components and Systems." <i>Bulletin of the New Zealand Society of Earthquake Engineering</i> (in press).</p> <p>(11) Rutkow, L., <b>Mitrani-Reiser, J.</b>, and Barnett, D.J. "Promoting Comprehensive Disaster Policy Through Interdisciplinary Collaboration." <i>Injury Prevention</i> (available online).</p> <p>(10) <b>Mitrani-Reiser, J.</b>, Wu, S., and Beck, J.L. "Virtual Inspector and its application to immediate pre-event and post-event earthquake loss and safety assessment of buildings." <i>Natural Hazards</i> (available online).</p> <p>(9) <b>Liu, Z.</b>, Jacques, C.C., Szyniszewski, S., Guest, J.K., Schafer, B.W., Igusa, T., and <b>Mitrani-Reiser, J.</b>, 2016. "Agent-based simulation of building evacuation after an earthquake: coupling human behavior with structural response." <i>Natural Hazards Review</i>, 17(1), February 2016.</p> <p>(8) <b>Pita, G.L.</b>, Pinelli, J.-P., Gurley, K., and Mitrani-Reiser, J., 2015. "State of the Art of Hurricane Vulnerability Models: A Review." <i>Natural Hazards Review</i>, 16(2), May 2015.</p> <p>(7) <b>Jacques, C.</b>, McIntosh, J.K., Giovinazzi, S., Kirsch, T.D., Wilson, T.M., and <b>Mitrani-Reiser, J.</b>, 2014. "Resilience of the Canterbury Health Care System to the 2011 Christchurch (Mw=6.2) Earthquake, NZ", <i>Earthquake Spectra</i>, 30(1): pp. 533-554.</p> <p>(6) <b>Mitrani-Reiser, J.</b>, Mahoney, M., Holmes, W.T., de la Llera, J.C., Bissell, R., and Kirsch, T.D., 2012. "A Functional Loss Assessment of a Hospital System in the Biobío Province." <i>Earthquake Spectra</i>, 28(S1): pp. S473-S502.</p> <p>(5) <b>Pita, G. L.</b>, Pinelli, J.-P., Gurley, K., Weekes, J., and <b>Mitrani-Reiser, J.</b>, 2012. "Assessment of hurricane-induced internal damage to low-rise buildings in the Florida Public Hurricane Loss Model," <i>Journal of Wind Engineering and Industrial Aerodynamics</i>, 104-106, pp. 76-87.</p> <p>(4) Ramirez, M., Liel, A., <b>Mitrani-Reiser, J.</b>, Haselton, C., Spear, A., Steiner, J., Miranda, E., and G.G. Deierlein, 2012. "Seismic Damage and Monetary Loss Performance of Modern Reinforced Concrete Frame Buildings", <i>Earthquake Engineering and Structural Dynamics</i>, 14(11): pp. 1455-1475.</p> <p>(3) Kirsch, T.D., <b>Mitrani-Reiser, J.</b>, Bissell, R., Sauer, L.M., Mahoney, M., Holmes, W.T., Santa Cruz, N., de la Maza, F., 2010. "Impact on Hospital Functions Following the 2010 Chilean Earthquake." <i>Journal of Disaster Medicine and Public Health Preparedness</i>, 4(2): pp. 122-128.</p> <p>(2) Goulet, C., Haselton, C., <b>Mitrani-Reiser, J.</b>, Beck, J.L., Deierlein, G., Porter, K.A., Stewart, J.P., and Taciroglu, E., 2007. "Evaluation of the Seismic Performance of a Code-Conforming Reinforced-Concrete Building - From Seismic Hazard to Loss Results," <i>Earthquake Engineering and Structural Dynamics</i>, 36(13): pp. 1973-1997.</p> <p>(1) Porter, K, <b>Mitrani-Reiser, J.</b> and Beck, J.L., 2006. "Near-Real-Time Loss Estimation</p>

for Instrumented Buildings," *The Structural Design of Tall and Special Buildings* 15 (1), 3-20, March 2006.

## REFEREED CONFERENCE PROCEEDINGS

### **Published**

\* denotes author which presented paper at conference; **bold font** indicates STIRM research group member.

- (23) de la Llera, J.C., **Mitrani-Reiser, J.**, Rovera, F., Fortuno, C., Junemann, R., Poulos, A., and Vasquez, J., 2015. The 2010 Chile Earthquake: a five-year reflection, *Proc., of the 9<sup>th</sup> Pacific Conference on Earthquake Engineering*, Sydney, Australia.
- (22) Di Sarno, L.\*, Manfredi, G., Magliulo, G., Petrone, C., Masi, A., Santarsiero, G., Fabbrocino, G., Rainieri, C., **Mitrani-Reiser, J.**, and Giovinazzi, S., 2015. An Approach to the Seismic Performance Assessment of Medical Components, *Proc., Annual Conference of Italian National Association of Earthquake Engineering*, L'Aquila, Italy, September 2015.
- (21) Masi, A.\*, Di Sarno, L., Manfredi, G., Santarsiero, G., Giovinazzi, S., and **Mitrani-Reiser, J.**, 2015. Seismic Risk of Italian hospitals: analysis of assessment results to define criteria for intervention prioritization, *Proc., Annual Conference of Italian National Association of Earthquake Engineering*, L'Aquila, Italy, September 2015.
- (20) **Mitrani-Reiser, J.\***, **Jacques, C.**, and **Boston, M.**, 2014. Quantifying the Performance of Healthcare Facilities in Disasters: A Multi-hazard Approach, *Proc., 10<sup>th</sup> National Conference on Earthquake Engineering*, Anchorage, AK, July 2014.
- (19) **Boston, M.\***, **Mitrani-Reiser, J.**, **Jacques, C.**, and **Liu, Z.**, 2014. Towards Assessing the Resilience of a Community in Seismic Events Using Agent-Based Modeling, *Proc., 10<sup>th</sup> National Conference on Earthquake Engineering*, Anchorage, AK, July 2014.
- (18) **Pita, G.L.\*** and **Mitrani-Reiser, J.**, 2013. Modeling Hurricane-Induced Building Downtime, *12<sup>th</sup> Americas Conference on Wind Engineering*, Seattle, WA, July 2013
- (17) Leong, E.N., Liel, A.B.\*, **Mitrani-Reiser, J.**, Guglielmo, E., Friis, D., Lombard, D., Oliveira, R., and Pekelnicky, R., 2013. Gender and Racial Diversity in the Structural Engineering, *Proc., ASCE's Structures Congress*, Pittsburgh, May 2013.
- (16) Jacques, C., Mitrani-Reiser, J.\*, and Kirsch, T.D., 2013. An All-Hazards Approach for Quantifying Loss of Function for Critical Healthcare Infrastructure, *Proc., ASCE's Structures Congress*, Pittsburgh, May 2013.
- (15) **Pita, G.L.\***, Pinelli, J-P., **Mitrani-Reiser, J.**, Cocke, S., Gurley, K., 2012. Analysis of Hurricane Andrew Insurance Claim Data for Residential Buildings, *Proc., ATC-SEI Advances in Hurricane Engineering*, Miami, FL, October 2012.
- (14) **Mitrani-Reiser, J.\***, **Jacques, C.**, Kirsch, T.D., Giovinazzi, S., McIntosh, J.K., and Wilson, T.M., 2012. Response of the Regional Health Care system to the 22nd February 2011, Christchurch Earthquake, NZ, *Proc., 15<sup>th</sup> World Conference on Earthquake Eng.*, Lisbon, Portugal, Sept. 2012.
- (13) **Liu, Z.**, Jalalpour, M., **Jacques, C.**, Szyniszewski, S., **Mitrani-Reiser, J.\***, Guest, J., Igusa, T., & Schafer, B.W., 2012. Interfacing Building Response with Human Behavior Under Seismic Events, *Proc., 15<sup>th</sup> World Conference on Earthquake Engineering*, Lisbon, Portugal, Sept. 2012.
- (12) **Liu, Z.**, **Jacques, C.\***, Jalalpour, M., Szyniszewski, S., **Adelburg, J.**, Guest, J.K., Igusa, T., Schafer, B.W., and **Mitrani-Reiser, J.**, 2012. Seismic Evacuation Model Accounting for Human-Structure Interaction, *Proc., 2<sup>nd</sup> International Conference on Evacuation Modeling and Management*, Chicago, IL, August, 2012.
- (11) McIntosh, J.K.\*, **Jacques, C.**, **Mitrani-Reiser, J.**, Kirsch, T.D., Giovinazzi, S., and Wilson, T.M., 2012. The Impact of the 22<sup>nd</sup> February 2011 Earthquake on Christchurch Hospital, *Proc., New Zealand Society for Earthquake Eng. Annual Meeting*, Wellington, New Zealand, May 2012.
- (10) **Pita, G. L.**, Pinelli, J-P.\*, Cocke, S., Gurley, K., Weekes, J., and **Mitrani-Reiser, J.**,



2011. Assessment of hurricane-induced internal damage to low-rise buildings in the Florida Public Hurricane Loss Model, *Proc., International Conference of Wind Engineering*, Amsterdam, Netherlands, July 2011.
- (9) **Pita, G. L.**, Francis, R.\*, **Liu, Z.**, **Mitrani-Reiser, J.**, Guikema, S. , Pinelli, J.-P., 2011. Statistical tools for populating/predicting input data of risk analysis models, *Proc., International Conference on Vulnerability and Risk Analysis and Management (ICVRAM)*, Hyattsville, MD, April 2011.
- (8) **Pita, G. L.**\*, Pinelli, J.-P., Gurley, K., Weekes, J., and **Mitrani-Reiser, J.**, 2011. Wind Vulnerability Curves for Low-Rise Commercial-Residential Buildings in the Florida Public Hurricane Loss Model, *Proc., International Conference on Vulnerability and Risk Analysis and Management*, Hyattsville, MD, April 2011.
- (7) Ryan, K.\*, Sayani, P., Baez, Y., and **Mitrani-Reiser, J.**, 2009. Comparative Life Cycle Performance Assessment of Conventional and Seismic Isolated Buildings, *Proc., International Symposium on Seismic Response Controlled Buildings for Sustainable Society*, Tokyo, Japan, September 2009.
- (6) **Mitrani-Reiser, J.**\*, Luco, N., Ryu, H., and Jones, N.P., 2009. Virtual Building Inspection for Open Risk Assessment Software, *Proc., 10<sup>th</sup> International Conference on Structural Safety and Reliability*, Osaka, Japan, September 2009.
- (5) Luco, N.\*, Martinez, E.M., Field, E.H., Ryu, H., and **Mitrani-Reiser, J.**, 2009. An Interactive Web Tool for Quantitative Risk Assessment of Woodframe Houses ("ResRisk"): A Progress Report, *Proc., 10<sup>th</sup> International Conference on Structural Safety and Reliability*, Osaka, Japan, September 2009.
- (4) Krishnan, S.\*, Komatitsch, D., Tromp, J., Muto, M., **Mitrani-Reiser, J.**, and Beck, J.L., 2008. Simulation of an 1857-like Mw 7.9 San Andreas fault earthquake and the response of tall steel moment frame buildings in southern California- A Prototype study, Seismic loss estimation based on end-to-end simulation, *Proc., 14<sup>th</sup> World Conference on Earthquake Engineering*, Beijing, China, October 2008.
- (3) Goulet, C.\*, Haselton, C.\*, **Mitrani-Reiser, J.**, Stewart, J.P., Taciroglu, E., and Deierlein, G.G., 2006. Evaluation of the Seismic Performance of a Code-Conforming Reinforced-Concrete Frame Building - Part I: Ground Motion Selection and Structural Collapse Simulation, paper NCEE-1576, *Proc., 8<sup>th</sup> Nat'l Conference on Earthquake Engineering*, San Francisco, CA, April 2006.
- (2) **Mitrani-Reiser, J.**\*, Haselton, C., Goulet, C., Porter, K.A., Beck, J.L., and Deierlein, G. 2006. Evaluation of the Seismic Performance of a Code-Conforming Reinforced-Concrete Frame Building - Part II: Loss Estimation, paper NCEE-969, *Proc., 8<sup>th</sup> National Conference on Earthquake Engineering*, San Francisco, CA, April 2006.
- (1) Porter, K.A.\*, **Mitrani-Reiser, J.**, Beck, J.L. and Ching, J.Y., 2006. Smarter Structures: Real-Time Loss Estimation for Instrumented Buildings, paper NCEE-1236, *Proc., 8<sup>th</sup> National Conference on Earthquake Engineering* San Francisco, CA, April 2006.

## OTHER PUBLICATIONS

**Reports** \* denotes author which presented paper at conference; **bold font** indicates STIRM research group member.

- (6) **Mitrani-Reiser, J.**, **Jacques, C.**, Kirsch, T., Comerio, M., Holmes, B., Mahin, S. Giovinazzi, S., McIntosh, J., and Wilson, T., 2013. "A Comparative Study on the Seismic Preparedness of Hospitals Following Recent Damaging Events." *California Seismic Safety Commission (CSSC) Technical Report*.
- (5) Giovinazzi, S., **Mitrani-Reiser, J.**, Kirsch, T., Wilson, T.M., **Jacques, C.**, McIntosh, J.K., and Johnston, D., 2011. Assessing the Post-Earthquake Functionality of the Health System Following the Canterbury Earthquakes in NZ. Hospital Functions and Services, NHRP.
- (4) **Mitrani-Reiser, J.**, and Jones, N.P., 2010. "A Decision Support Tool for Open Risk

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	Assessment Software: Collaborative Research with Johns Hopkins University," <i>USGS Technical Report 2010 for Award No 08HQGR001</i> . Reston, Virginia.
	(3) Haselton, C., Goulet, C., <b>Mitrani-Reiser, J.</b> , Beck, J.L., Deierlein, G., Porter, K.A., Stewart, J.P., and Taciroglu, E., 2008. "Benchmarking of the Seismic Performance of a Code-Conforming Reinforced-Concrete Building," <i>PEER Technical Report 2007/12</i> . Berkeley, California.
	(2) Porter, K.A., J.L. Beck, J.Y. Ching, and <b>Mitrani-Reiser, J.</b> , 2004. "Real-Time Loss Estimation for Instrumented Buildings," <i>Earthquake Engineering Research Laboratory Report</i> , California Institute of Technology, Pasadena, CA.
	(1) <b>Mitrani, J.</b> , Goethals, J. and Glaser, S. 2002. "Field Testing of Wireless Interactive Sensor Nodes," <i>Port and Airport Research Institute Technical Report</i> , Yokosuka, Japan.
<b>Special Earthquake Reports</b>	(2) Comerio, M., et al., 2011. "Learning from Earthquakes: The M 6.3 Christchurch, New Zealand, Earthquake of February 22, 2011," EERI Newsletter Insert, May 2011 (16 pp).
	(1) Moehle, J., et al., 2010. "Learning from Earthquakes: The Mw 8.8 Chile Earthquake of February 27, 2010," EERI Newsletter Insert, June 2010 (20 pp).
<b>Practice Oriented</b>	(2) FEMA (contributing author: J. Mitrani-Reiser), 2013. P-942: <i>Superstorm Sandy: Observations, Conclusions, and Recommendations</i> , Technical Report Prepared for the U.S. Department of Homeland Security (DHS) Federal Emergency Management Agency, Washington, DC.
	(1) FEMA (contributing author: J. Mitrani-Reiser), 2012. P-58: <i>Seismic Performance Assessment of Buildings</i> , Technical Report Prepared for the U.S. Department of Homeland Security (DHS) Federal Emergency Management Agency, Washington, DC.

## CONFERENCE PRESENTATIONS/EXTENDED ABSTRACTS

- \* denotes author which presented paper at conference; **bold font indicates STIRM research group member.**
- (12) **Mitrani-Reiser, J.\***, 2015. "The Nepal Earthquake: Dispatches from the Field," Natural Hazards Workshop, Boulder, CO, July 2015.
  - (11) **Mitrani-Reiser, J.\***, 2015. "Organizational and Institutional Resilience," Natural Hazards Workshop, Boulder, CO, July 2015.
  - (10) **Jacques, C.\***, Giovinazzi, S., Kirsch, T.D., and **Mitrani-Reiser, J.** Characterization of the Canterbury, New Zealand Healthcare System for Use in Seismic Simulation. Poster session. Presented at the EERI 2015 Annual Meeting; 2015 March 29 - April 3; Boston, MA, USA.
  - (9) **Jacques, C.C.\***, Giovinazzi, S., and **Mitrani-Reiser, J.**, 2014. "Quantifying the Resilience of Healthcare Systems in Earthquakes: a Practical Approach," *Proc., 3rd International Conference on Urban Disaster Reduction*, Boulder, CO, Oct 2014.
  - (8) **Mitrani-Reiser, J.\***, 2014. "Quantifying Societal Impacts of Natural Disasters," Systems Institute Workshop, Johns Hopkins University, Baltimore, MD, Oct 2014.
  - (9) De la Llera, J. C.\*, Rivera F., Jünemann R., **Mitrani-Reiser, J.\***, Fortuño C., Hube M., Santa María H., Ríos, M., Lagos R., Guendelman T., Candia G., Ledezma C., Hube M., Cienfuegos R., Lindenberg, J., 2014. "Post Earthquake Data Collection: the 2010 Maule Earthquake," *Post Earthquake Data Workshop*, Anchorage, AK, July 2014.
  - (8) **Mitrani-Reiser, J.\***, 2013. "East Coast Earthquakes, Damage to Critical Building Systems, and Performance-Based Design," *National Society of Professional Engineers Meeting*, Washington, DC, Dec 2013.
  - (7) **Jacques, C.\*** and **Mitrani-Reiser, J.**, 2013. "Quantifying Resilience of Healthcare Facilities," *Emergency Public Health and Disasters Conference*, Torrence, CA, May

2013.

- (6) **Jacques, C.\***, Liu, Z., Szyniszewski, S., Schafer, B., and **Mitrani-Reiser, J.** "Modeling Post-Earthquake Evacuation of Damaged Structures: an Agent-Based Approach" Poster Session. Presented at the EERI 2013 Annual Meeting; 2013 February 12-15; Seattle, WA, USA.
- (5) **Mitrani-Reiser, J.\***, 2013. "Applying Models of Human Behavior and Memory in Disasters Across Space and Time," *National Council for Science and the Environment (NCSE)*, Disasters & the Environment, Washington, DC, Jan 2013.
- (4) **Jacques, C.\***, **Adelburg, J.**, & **Mitrani-Reiser, J.** "Earthquake Outreach: Design of an Educational Module for High School Students on Seismic Design in a Healthcare Context." Poster session. Presented at the EERI 2012 Annual Meeting and National Earthquake Conference; 2012 April 10-13; Memphis, TN, USA.
- (3) **Mitrani-Reiser, J.\***, 2012. "Quantifying Loss of Function of Critical Building Systems due to Recent Seismic Events," *EERI Annual Meeting*, Memphis, TN, April 2012.
- (2) **Mitrani-Reiser, J.\*** and Beck, J.L., 2007. Incorporating Losses Due to Repair Costs, Downtime and Fatalities in Probabilistic-Based Earthquake Engineering, *Proc., Computational Methods in Structural Dynamics and Earthquake Engineering*, Crete, Greece, June 2007.
- (1) **Mitrani-Reiser, J.\***, 2007. "Modeling Decision Variables: Dollars, Deaths, and Downtime," *PEER Annual Meeting*, San Francisco, CA, Jan 2007. (plenary talk)

## INVITED PRESENTATIONS

### **Invited Seminars**

- (25) University of California, Berkeley, CA, PEER Annual Meeting, Jan 2016 (2016). "Modeling Community Functioning Following Earthquakes."
- (24) University of California, Berkeley, CA, SEMM Seminar, Nov 2015 (2015). "Assessment of Critical Community Functions after Disasters."
- (23) Structural Engineers Association of Utah/EERI-Utah Chapter Joint Lecture, Salt Lake City, UT, Oct 2015 (2015). "Assessment of Critical Community Functions after Disasters."
- (22) University of Connecticut, Storrs, CT, Sept 2015 (2015). "Risk Assessment of Critical Community Functions after Disasters."
- (21) National Institute of Building Sciences, Multihazard Mitigation Council Monthly Webinar, Sept 2015 (2015). "Disasters and Infrastructure"
- (20) University of Pittsburg Medical Center, Baltimore, MD, Sept 2015 (2015). "Natural Disaster Impacts on Infrastructure Systems and Society."
- (19) Pacific Earthquake Engineering Research (PEER) Center, UC Berkeley, CA, Aug 2015 (2015). "Healthcare Facilities."
- (18) Utah Hospital Association, Salt Lake City, UT, May 2015 (2015). "Assessment of Healthcare Functions after Disasters."
- (17) University of Virginia, Dept. of Civil & Environmental Engineering, April 2015 (2015). "Risk Assessment of Critical Community Functions after Disasters."
- (16) University of Florida, Dept. of Civil & Environmental Engineering, Mar 2015 (2015). "Risk Assessment of Critical Community Functions after Disasters."
- (15) Utah State Health Department, Mar 2015 (2015). "Assessment of Healthcare Functions after Disasters."
- (14) University of Delaware, Disaster Research Center Seminar, Nov 2014 (2014). "Risk Assessment of Critical Community Functions after Disasters."
- (13) Rutgers University, School of Planning and Public Policy, Oct 2014 (2014). "Research Collaboration Network on Sustainable Cities: Buildings as Critical Health Infrastructure."
- (12) Virginia Tech, Dept. of Civil & Environmental Engineering, Sept 2014 (2014). "Assessment of Critical Community Functions after Disasters."

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- (11) Pontificia Universidad Católica de Chile, Dept. of Structural & Geotechnical Engineering, Jan 2014 (2014), "Disaster Studies in the STIRM Lab."
- (10) Johns Hopkins University, Dept. of Environmental Health Sciences (BSPH), Dec 2013 (2013). "East Coast Earthquakes: Preparing for the Unexpected."
- (9) Pontificia Universidad Católica de Chile, Dept. of Structural & Geotechnical Engineering, Jan 2013 (2013), "Estimating Loss of Function of Critical Building Systems."
- (8) University of Puerto Rico, Mayaguez, Dept. of Civil Engineering, Nov. 2012 (2012). "Estimating Loss of Function of Critical Building Systems."
- (7) Carnegie Mellon University, Dept. of Civil Engineering, May 2012 (2012). "A Performance Assessment of Critical Building Systems After Recent Seismic Events."
- (6) Tulane University, Tulane Engineering Forum, March 2012 (2012). "Quantifying Loss of Function of Critical Building Systems due to Recent Seismic Events."
- (5) Johns Hopkins University, Johns Hopkins Medicine International, June 2010 (2010). *"The Impact of the 2010 Chilean Earthquake on Hospital Functions."*
- (4) National Institute of Standards and Technology (NIST), National Hazards Earthquake Reduction Program, April 2009 (2009). "Tools for Performance Design and Multi-Hazard Applications."
- (3) Rensselaer Polytechnic Institute (RPI), Dept. of Civil Engineering, Nov 2008 (2008). "Tools for Performance Design and Multi-Hazard Applications."
- (2) Johns Hopkins University, Dept. of Civil Engineering, April 2008 (2008). "New Structural Performance Metrics and Applications in Earthquake and Wind Engineering."
- (1) Caltech, Dept. of Civil Engineering, Feb 2008 (2008). "An Ounce of Prevention: Probabilistic Loss Estimation for Performance-Based Earthquake Engineering."