

NHERI Council Monthly Meeting No. 11, Y-6
May 5, 2022 02:00 – 3:00 PM EDT

NHERI Council – Spring 2022 Meetings

Topic: NHERI Council - 2022

Time: May 5, 2022 02:00 PM (US and Canada)

Every month on the First Thu, until May 5, 2022, 5 occurrence(s)

Please download and import the following iCalendar (.ics) files to your calendar system.

Monthly: <https://DesignSafe-ci.zoom.us/meeting/tJUtfuCprjMtG9Hqq8sjgehkA7W5FWSorhN/ics?icsToken=98tyKuCprjIjG9SdtxiCRowcAor4XevziFxajfp1jQ69ECpUZwv9F7V1Z5RII9ed>

Join Zoom Meeting

<https://DesignSafe-ci.zoom.us/j/91099108715>

Meeting ID: 910 9910 8715

Attending:

- Oregon State University: Dan Cox (EF Dir.) and Pedro Lomonaco (Fac. Dir.) Hinsdale
- University of California, Berkeley: Matt Schoettler (Assoc. Dir. – Ops), SimCenter
- University of California, Davis:
- University of California, San Diego: Joel Conte (EF Dir.,) LHPOST
- University of Colorado Boulder: Lori Peek (Dir., CONVERGE)
- University of Florida: Kurt Gurley (Associate Director ESSIE, Powel Laboratory)
- University of Texas at Austin: Ellen Rathje (CI Dir.) DesignSafe-CI
- University of Texas at Austin: Ken Stokoe (EF Dir.) and Farnyuh Menq (Operations Manager) Texas Mobile Equipment Facility
- University of Washington: Jeff Berman (CoPI and Fac. Manager) RAPID
- National Science Foundation:
- Purdue University: Julio Ramirez (NCO Dir., Council Secretary), and Dan Zehner (NCO Sch./Ops. Coord.)
- Florida International University:
- Lehigh University:

Minutes

1. Attendance

Listed on the previous page. In the absence of Arindam and Jennifer, the meeting was chaired by Julio.

2. Review and Approval of Minutes (previously distributed) Meeting No. 10, 4/7/22 in Y-6 (Arindam)

Lori moved to approve the minutes as distributed and Joel seconded. The minutes were approved as distributed.

Approved Minutes are posted at: <https://www.designsafe-ci.org/facilities/nco/governance/nheri-council/>

3. Continuing Business

a) Update NHERI Researchers Meeting. (Dan Cox and Julio Ramirez, 10')

The Council received an update on the status of the program organization from Dan Cox (attached to these minutes) and asked for the Council's input on it. For instance, in the federal agencies panel on Day 1, he asked if there was a dimension missing, and for suggestions on possible additions to the Ted-talk style presentations. Also, the website for the Summit is getting ready to go public, with the content on some of the tabs to be added later. Several other items were shared such as the possible e-collection from the meeting based on the Ted talk style session.

b) NCO Items (10')

a. Schedule of Meetings in June, July and August 2022.

It was agreed to continue with the same schedule of meetings at 2:00 PM EDT on June 2, July 7, and August 4.

b. Election of Vice-Chair for the July 2022 – June 2023 term

Joe Wartman accepted the nomination and the Council concurred. The Council officers for the July 2022 – June 2023 term will be Jennifer Bridges (Chair), Joe Wartman (vice-Chair) and Julio Ramirez (Secretary) with term starting at the conclusion of the June meeting.

c) Facility status updates (All)

Reports:

- UCSD: Official re-opening is scheduled for June 30th. Initial testing is already underway using the steel frame testbed.
- OSU: testing is ongoing.
- UT Mobile: testing ongoing.
- RAPID: workshops planned in conjunction with the 12NCEE and the Summit.
- SimCenter: shared a series of upcoming events from hands on interactive tool training and the symposium in November.
- DesignSafe: data set award were announced. The Academy is coming up this summer.
- University of Florida: joint workshop with CONVERGE for the Graduate Student Council. Testing is ongoing.

4. New Business

Julio brought to the attention of the Council that KOCED from South Korea had approached the NCO with a proposal to consider a partnership and to consider as a possible agenda item for a future meeting.

5. Adjourn

The meeting adjourned at 3:00 PM EDT with Matt making the motion.

Draft Outline for Natural Hazards Research Summit

<https://www.designsafe-ci.org/learning-center/training/nco/2022/natural-hazards-engineering-research-summit/overview/>

Day 1

8:00	Great Hall opens	8
8:15		
8:30	Day 1 Open Remarks	
8:45	Keynote Address	9
9:00		
9:15	Pannel Session: National Needs and Opportunities for Disaster Research	10
9:30		
9:45		
10:00		
10:15		
10:30	Break	
10:45		
11:00	Invited Presentaion 1	11
11:15		
11:30	Invited Presentaion 2	
11:45		
12:00	Lunch at the NAS	12
12:15		
12:30		
12:45		
13:00	Invited Presentaion 3	1
13:15		
13:30	Invited Presentaion 4	
13:45		
14:00	Invited Presentaion 5	2
14:15		
14:30	Invited Presentaion 6	
14:45		
15:00	Break	3
15:15		
15:30	Visioning Session: Future Research Needs and Priorities	4
15:45		
16:00		
16:15		
16:30		
16:45	Day 1 Closing Remarks	
17:00		5
17:15	Summit Reception	
17:30		
17:45		
18:00		

Day 1 is the 'big tent' event at the National Academies of Sciences, designed to bring people together at the National Academy of Sciences to discuss national research needs and future directions. The program starts with Keynote, followed by an expert panel discussion, Ted-style talks from leading researchers and ends with a town-hall style visioning session for our collective voices to be heard.

Day 2

8:00	Breakfast	8		
8:15				
8:30	Day 2 Plenary			
8:45				
9:00	Mini-Workshop: Visioning Session for Future Reseaerch Needs and Priorities	9		
9:15				
9:30				
9:45				
10:00				
10:15	Break			
10:30				
10:45	1A	11		
11:00			1B	
11:15				1C
11:30				
11:45				
12:00	Networking Lunch and Poster Session	12		
12:15				
12:30				
12:45				
13:00				
13:15		1		
13:30	2A	2		
13:45			2B	
14:00				2C
14:15				
14:30				
14:45				
15:00	Break	3		
15:15				
15:30	3A	4		
15:45			3B	
16:00				3C
16:15				
16:30				
16:45	Closing			
17:00		5		

Day 2 is focused on the needs of academic researchers. The day starts with a mini-workshop stemming from the Day 1 Visioning Session to develop prioritized needs of the research community. A hosted lunch with poster session will facilitate networking among researchers, program managers, and NHERI representatives. The second half of the day will be devoted to early career panel, opportunities for involvement in hazards research, and focused discussion on modeling, data reuse, shared-use equipment, hybrid simulation, and enabling convergence in disaster research,

Day 1

8:00	Great Hall opens	8
8:15		
8:30	Day 1 Open Remarks	
8:45	Keynote Address	
9:00		9
9:15	Pannel Session: National Needs and Opportunities for Disaster Research	
9:30		
9:45		
10:00		
10:15		10
10:30		
10:45	Break	
11:00		11
11:15	Invited Presentaion 1	
11:30		
11:45	Invited Presentaion 2	
12:00		12
12:15	Lunch at the NAS	
12:30		
12:45		
13:00	Invited Presentaion 3	1
13:15		
13:30	Invited Presentaion 4	
13:45		
14:00	Invited Presentaion 5	2
14:15		
14:30	Invited Presentaion 6	
14:45		
15:00	Break	3
15:15	Visioning Session: Future Research Needs and Priorities	
15:30		
15:45		
16:00		
16:15		4
16:30		
16:45	Day 1 Closing Remarks	
17:00		5
17:15	Summit Reception	
17:30		
17:45		
18:00		
		6

Day 1 October 6, 2022

Venue: National Academy of Sciences Building, 2101 Constitution Avenue NW, Washington DC. Venue opens at 8:00 am ET.

8:00 am Venue Opens

Great Hall opens

8:30 am Opening Remarks



Julio Ramirez

Summit Co-chair

Professor, Purdue University, Lead PI and Director, NHERI NCO

8:45 am Keynote

Keynote will underscore the critical role that university research must play in addressing the country's failing infrastructure and enhancing the nation's resilience to natural hazards



Reginald DesRoches

Provost, Rice University

A fellow of the American Society of Civil Engineers (ASCE) and the society's Structural Engineering Institute (SEI), DesRoches served as the key technical leader in the United States' response to the 2010 Haiti earthquake, taking a team of 28 engineers, architects, city planners and social scientists to study the impact of the earthquake.

Day 1

8:00	Great Hall opens	8
8:15		
8:30	Day 1 Open Remarks	
8:45	Keynote Address	
9:00		9
9:15	Pannel Session: National Needs and Opportunities for Disaster Research	
9:30		
9:45		
10:00		
10:15		10
10:30		
10:45	Break	
11:00	Invited Presentaion 1	11
11:15		
11:30	Invited Presentaion 2	
11:45		
12:00		12
12:15	Lunch at the NAS	
12:30		
12:45		
13:00	Invited Presentaion 3	1
13:15		
13:30	Invited Presentaion 4	
13:45		
14:00	Invited Presentaion 5	2
14:15		
14:30	Invited Presentaion 6	
14:45		
15:00	Break	3
15:15	Visioning Session: Future Research Needs and Priorities	
15:30		
15:45		
16:00		
16:15		4
16:30		
16:45	Day 1 Closing Remarks	
17:00		5
17:15	Summit Reception	
17:30		
17:45		
18:00		
		6

9:15 am Expert Panel: National Need, Priorities, and Opportunities in Disaster Research

This expert panel will discuss the national needs related to hazard and disaster research and the role of universities and diverse, collaborative networks in addressing future challenges, including infrastructure renewal, disaster equity, climate change, and resilient communities



Eric Letvin

Deputy Assistant Administrator, Mitigation Division, FEMA

Mr. Letvin directs FEMA's pre- and post-disaster mitigation programs that support sustainable, disaster-resilient communities, to avoid or reduce the loss of life, property, and financial impacts of natural hazards. These programs include the Building Resilient Infrastructure and Communities Grant Program, the Hazard Mitigation Grant Program, the Flood Mitigation Assistance grants, the Floodplain Management component of the National Flood Insurance Program (NFIP), and the Community Rating System under the NFIP.
<https://www.fema.gov/profile/eric-letvin>



Reginald DesRoches
Provost, Rice University



Jacqueline Meszaros

Science & Technology Advisor for Hazards, Disasters and Resilience, NSF

Jacqueline "Jack" Meszaros coordinates disaster-relevant interagency and cross-directorate activities as well as coordinating with academic partners. From 2015-2019, she served as the senior policy advisor and assistant director for natural hazards resilience at the White House Office of Science and Technology Policy (OSTP). She has provided science advice to the National Academy of Sciences and NASA, among others
<https://hazards.colorado.edu/workshop/2020/speaker/jacqueline-meszaros>



Potentially one more



Judy Mitrani-Reiser

Associate Chief, Materials and Structural Systems Division, NIST

Mitrani-Reiser provides leadership in the development and coordination of statutory processes for making buildings safer as authorized by various statutes, including the NCST, NWIR, and NEHR Acts. She manages and provides oversight on building failure investigations and coordinates work with other Federal agencies to reduce losses in the United States from disasters and failures of our built environment.
<https://www.nist.gov/people/judith-mitrani-reiser>

10:45 am Break

This hosted break will be held in the Great Room.

Day 1

8:00	Great Hall opens	8
8:15		
8:30	Day 1 Open Remarks	
8:45	Keynote Address	9
9:00		
9:15	Pannel Session: National Needs and Opportunities for Disaster Research	10
9:30		
9:45		
10:00		
10:15		
10:30	Break	
10:45		
11:00	Invited Presentaion 1	11
11:15		
11:30	Invited Presentaion 2	
11:45		
12:00	Lunch at the NAS	12
12:15		
12:30		
12:45		
13:00	Invited Presentaion 3	1
13:15		
13:30	Invited Presentaion 4	
13:45		
14:00	Invited Presentaion 5	2
14:15		
14:30	Invited Presentaion 6	
14:45		
15:00	Break	3
15:15		
15:30	Visioning Session: Future Research Needs and Priorities	4
15:45		
16:00		
16:15		
16:30		
16:45	Day 1 Closing Remarks	
17:00		5
17:15	Summit Reception	
17:30		
17:45		
18:00		

11:00 am Invited Presentations

This series of invited presentation from leading university researchers will be given in “Ted-Talk” style format to synthesize existing state of the art in areas, with emphasis on enabling discoveries and transitioning to policy and impact



Tracy Kijewski-Correa
Professor, University of Notre Dame

“Hazards Research Informing Policy: The role of collaborative networks”

This session will showcase vignettes of NHERI research that has translated into policies that protect critical infrastructure and reduce the risk of hazards for our communities.



Lori Peek
Director, Natural Hazards Center and Professor, Department of Sociology, University of Colorado, Boulder

Place holder title

Place holder text . Place holder text . Place holder text . Place holder text .
Place holder text . Place holder text . Place holder text . Place holder text .

12:00 pm Lunch

A catered lunch is provided with your registration. Lunch will be held in the Great Hall and will provide opportunities for networking with colleagues and presenters

Day 1

8:00		8
8:15	Great Hall opens	
8:30	Day 1 Open Remarks	
8:45	Keynote Address	9
9:00		
9:15	Pannel Session: National Needs and Opportunities for Disaster Research	
9:30		
9:45		
10:00		
10:15		
10:30		
10:45	Break	
11:00	Invited Presentaion 1	11
11:15		
11:30	Invited Presentaion 2	
11:45		
12:00		12
12:15	Lunch at the NAS	
12:30		
12:45		
13:00	Invited Presentaion 3	1
13:15		
13:30	Invited Presentaion 4	
13:45		
14:00	Invited Presentaion 5	2
14:15		
14:30	Invited Presentaion 6	
14:45		
15:00	Break	3
15:15	Visioning Session: Future Research Needs and Priorities	
15:30		
15:45		
16:00		
16:15		4
16:30		
16:45	Day 1 Closing Remarks	
17:00		5
17:15	Summit Reception	
17:30		
17:45		
18:00		

1:00 pm Invited Presentations (continued)

This series of invited presentation from leading university researchers will be given in “Ted-Talk” style format to synthesize existing state of the art in areas, with emphasis on enabling discoveries and transitioning to policy and impact



Gregory G. Deierlein

John A. Blume Professor, Stanford University

“State of the Art and Future Needs in Computational Simulation for Natural Hazards Engineering”

Emphasis is placed on open-source modeling platforms, key capabilities, and major research gaps and needs, with the intent that proposals to NSF and other agencies will fill these gaps to advance the field.



Ellen Rathje, Professor and Janet S. Cockrell Centennial Chair in Engineering, University of Texas – Austin

“The Role of Data in Transforming Hazard and Disaster Research”

How close are we to realizing a vision where hazard forecasting is as commonplace as weather forecasting? The key to realizing this vision is real-time data collection, integration, and analysis coupled with hazard impact visualization. At the core of this work are data-driven models that predict hazard impacts, which can only be developed if large volumes of data are available regarding all dimensions of natural hazards. This talk will explore the current research efforts and future research needs required to achieving this vision.



Jamie Padgett,

Stanley C. Moore Professor in Engineering, Rice University

“How Convergence, Networks, and Long-term Programs Create an Ecosystem for the Next-generation Workforce in Natural Hazards and Disasters”

This talk emphasizes the necessity of large, collaborative networks to leverage research and education to development the next generation workforce to conduct natural hazards engineering research

Day 1

8:00	Great Hall opens	8
8:15		
8:30	Day 1 Open Remarks	
8:45	Keynote Address	9
9:00		
9:15	Pannel Session: National Needs and Opportunities for Disaster Research	10
9:30		
9:45		
10:00		
10:15		
10:30	Break	
10:45		
11:00	Invited Presentaion 1	11
11:15		
11:30	Invited Presentaion 2	
11:45		
12:00	Lunch at the NAS	12
12:15		
12:30		
12:45		
13:00	Invited Presentaion 3	1
13:15		
13:30	Invited Presentaion 4	
13:45		
14:00	Invited Presentaion 5	2
14:15		
14:30	Invited Presentaion 6	
14:45		
15:00	Break	3
15:15		
15:30	Visioning Session: Future Research Needs and Priorities	4
15:45		
16:00		
16:15		
16:30		
16:45	Day 1 Closing Remarks	
17:00		5
17:15	Summit Reception	
17:30		
17:45		
18:00		

3:00 pm Break

This hosted break will be held in the Great Room.

3:15 pm Visioning Session

This is your chance to be heard! This 'town hall' style interactive session will invite ideas and discussion among attendees to define university research needs, opportunities, and priorities. The ideas from this session will inform the mini-workshop on Day 2 as a conceptual roadmap for future research directions.



Tracy Kijewski-Correa

Leo E. and Patti Ruth Linbeck Collegiate Chair and Associate Professor,
University of Notre Dame
Director, Structural Engineering Extreme Event Reconnaissance (StEER) network

4:45 pm Closing Remarks



Daniel Cox

Summit Co-chair
Professor, Oregon State University
Lead PI, NHERI EF at OSU

5:00 pm Reception

This 1-hour reception will be held in the Great Room. Great chance for follow up discussion and meeting friends and colleagues.

Day 2

Day 2 October 7, 2022

Venue: Crystal City. Venue opens at 8:00 am ET.

8:00	Breakfast			8
8:15				
8:30	Day 2 Plenary			
8:45				
9:00				9
9:15	Mini-Workshop: Visioning Session for Future Research Needs and Priorities			
9:30				
9:45				
10:00				10
10:15	Break			
10:30				
10:45	1A	1B	1C	
11:00				
11:15				11
11:30				
11:45				
12:00				12
12:15	Networking Lunch and Poster Session			
12:30				
12:45				
13:00				1
13:15				
13:30	2A	2B	2C	
13:45				
14:00				2
14:15				
14:30				
14:45				
15:00	Break			3
15:15				
15:30	3A	3B	3C	
15:45				
16:00				4
16:15				
16:30				
16:45	Closing			
17:00				5

8:00 am Breakfast

Breakfast at hotel included for all registrants

8:30 am Opening Remarks

Day 2 plenary session with open remarks



Julio Ramirez
Summit Co-chair
Professor, Purdue University, Lead PI and Director, NHERI NCO

8:45 am Mini-Workshop: Visioning Session for Future Needs and Priorities

This 90 min mini-workshop will enable a deeper discussion into research needs and priorities from Day 1 Vision Session. Round-table format used to develop a strategic roadmap to guide disaster research for the next decade, including focused discussions on modeling and data, reconnaissance, social science and convergence, hybrid testing, and current and future testing capabilities.



Jennifer Bridge
Summit Co-chair
Professor, University of Florida
Lead PI, NHERI EF at UF

(not confirmed)

10:15 am Break

30 min break. Coffee and light snacks

Day 2

8:00	Breakfast			8
8:15	Day 2 Plenary			
8:30				
8:45				
9:00				9
9:15	Mini-Workshop: Visioning Session for Future Research Needs and Priorities			
9:30				
9:45				
10:00				10
10:15	Break			
10:30				
10:45	1A	1B	1C	
11:00				
11:15				
11:30				11
11:45				
12:00				12
12:15				
12:30	Networking Lunch and Poster Session			
12:45				
13:00				1
13:15				
13:30	2A	2B	2C	
13:45				
14:00				
14:15				2
14:30				
14:45				
15:00	Break			3
15:15				
15:30	3A	3B	3C	
15:45				
16:00				
16:15				4
16:30				
16:45	Closing			
17:00				5

10:45 am 1A – Focused Discussion: Outcomes of NSF Workshop on NHERI Science Plan

This 75-min session will be an overview of the discussion and outcomes of the NSF NHERI Science Plan workshop held in June. Topics include how climate change effects will be addressed in future hazards research, equity issues in disasters, and inclusion of engineering practice in formulating research teams.



Ian Robertson

Chair and Arthur N. L. Chiu Distinguished Professor, University of Hawaii
Member, NHERI Network Coordination Office and Co-organizer, NHERI Science Plan Workshop

10:45 am 1B – TBD

Can add alternative meeting/discussion session

10:45 am 1C – TBD

Can add alternative meeting/discussion session

Day 2

8:00	Breakfast			8
8:15	Day 2 Plenary			
8:30	Day 2 Plenary			
8:45	Mini-Workshop: Visioning Session for Future Research Needs and Priorities			9
9:00				
9:15				
9:30				
9:45	Break			10
10:00				
10:15	Break			
10:30	Break			
10:45	1A	1B	1C	11
11:00				
11:15				
11:30				
11:45	Networking Lunch and Poster Session			12
12:00				
12:15				
12:30				
12:45	Networking Lunch and Poster Session			1
13:00				
13:15				
13:30				
13:45	2A	2B	2C	2
14:00				
14:15				
14:30				
14:45	Break			3
15:00				
15:15	Break			
15:30	3A	3B	3C	4
15:45				
16:00				
16:15				
16:30	Closing			5
16:45				
17:00	Closing			

Day 2 October 7, 2022 (continued)

12:00 pm – 1:30 pm Lunch and Poster Session

This 90 min working lunch enables researchers to share ideas and recent advances through informal discussion via a poster session. NSF program managers are encouraged to attend.

Poster instructions are in the registration tab. Contact dan.cox@oregonstate.edu for questions.

1:30 pm 2A – Focused Discussion: Recent Investments in Large-scale Testing Facilities for Seismic and Windstorm Hazards

This session focuses on two recent NSF investment: The Large High-Performance Outdoor Shake Table at the UC San Diego for seismic research, and the National Full-Scale Testing Infrastructure for Community Hardening in Extreme Wind, Surge, and Wave Events (NICHE).



Joel Conte

Professor of Structural Engineering, University of California -- San Diego
PI, NHERI Large High Performance Outdoor Shake Table Experimental Facility
Director, Englekirk Structural Engineering Center Laboratory



Arindam Chowdhury

Professor and Chair, Department of Civil and Environmental Engineering, Florida International University
PI and Director, NHERI Wall of Wind (WOW) Experimental Facility

Day 2

8:00	Breakfast			8
8:15	Day 2 Plenary			
8:30				
8:45				
9:00	Mini-Workshop: Visioning Session for Future Research Needs and Priorities			9
9:15				
9:30				
9:45				
10:00	Break			10
10:15				
10:30				
10:45				
11:00	1A	1B	1C	11
11:15				
11:30				
11:45				
12:00	Networking Lunch and Poster Session			12
12:15				
12:30				
12:45				
13:00				1
13:15				
13:30	2A	2B	2C	2
13:45				
14:00				
14:15				
14:30				
14:45				
15:00	Break			3
15:15				
15:30	3A	3B	3C	4
15:45				
16:00				
16:15				
16:30				
16:45	Closing			5
17:00				

1:30 pm 2B – Panel Session: Early Career Panel

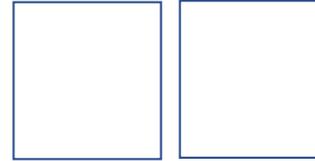
This 90-min panel session is designed to provide peer advice on developing successful research programs and proposal development in the area of hazards and disasters, including leveraging NSF investments in hazards research.



Barbara Simpson
Assistant Professor, Oregon State University



Erica Fischer
John and Jean Loosley Faculty Fellow and Assistant Professor, Oregon State University



1:30 pm 2C – Panel Session: Disaster Reconnaissance for Built-Human Environments

Place holder text . Place holder text .



Joseph Wartman
Professor, University of Washington and Director, Natural Hazard and Disaster Reconnaissance Facility (RAPID)

Place holder text . Place holder text . Place holder text . Place holder text .
Place holder text . Place holder text . Place holder text . Place holder text .

1:30 pm 2D – Office Hours: Meetings with NSF Program Managers, NHERI personnel, Senior Faculty

Summit organizers will coordinate a series of 30-minute meetings with NSF program managers, NHERI personnel, and Faculty Mentors. Can discuss proposal ideas, learn how to leverage NHERI investments for proposal, seek advice from faculty mentors

Day 2

8:00	Breakfast			8		
8:15	Day 2 Plenary					
8:30						
8:45	Mini-Workshop: Visioning Session for Future Research Needs and Priorities			9		
9:00						
9:15						
9:30						
9:45						
10:00	Break			10		
10:15						
10:30						
10:45	1A	1B	1C	11		
11:00						
11:15						
11:30						
11:45						
12:00	Networking Lunch and Poster Session			12		
12:15						
12:30						
12:45						
13:00				1		
13:15						
13:30	2A	2B	2C			
13:45						2
14:00						
14:15						
14:30						
14:45						
15:00	Break			3		
15:15	3A	3B	3C			
15:30						4
15:45						
16:00						
16:15						
16:30						
16:45	Closing			5		
17:00						

3:00 pm Break

15 min break. Coffee and light snacks

3:15 pm 3A – Focused Discussion: Multihazard Engineering Collaboratory on Hybrid Simulation (MECHS)

3:15 pm 3B– Panel Session/Focused Discussion: (open)

3:15 pm 3C – Panel Session/Focused Discussion: (open)

3:15 pm 3D – Office Hours: Meeting with NSF Program Managers and NHERI personnel

Summit organizers will coordinate a series of 30-minute meetings with NSF program managers and NHERI personnel. Details for sign up will be forthcoming

4:45 pm Closing

15 min closing



Julio Ramirez

Summit Co-chair

Professor, Purdue University, Lead PI and Director, NHERI NCO