

**NHERI Lehigh Experimental Facility
Researcher's Workshop:
Advanced Simulation For Natural Hazards Mitigation,
Challenges and Opportunities for Multi-Hazards
Engineering**

NHERI RTMD Equipment Site

Lehigh University

December 3, 2018



General Housekeeping Items

- Continental breakfast available in B101 (courtesy of ATLSS Engineering Research Center)
- B101 will be used for all presentations
- H150/A121 will be used for hands on testing
- A108 available if private office space required
- Lunch will be available in A200 (courtesy of ATLSS Engineering Research Center)
- Restrooms
- Wireless

Objectives

- To disseminate information on the use of the NHERI Lehigh and FIU Experimental Facilities (EF) to conduct state-of-the-art research in multi-natural hazards mitigation
- To provide the basics of real-time hybrid simulation through lectures and hands-on demonstrations
- To understand how the NHERI Lehigh and FIU EFs capabilities can enhance participant research in multi-natural hazards engineering
- To provide information for preparing NSF proposals which use the NHERI Lehigh and FIU EFs, and
- To identify and develop opportunities to utilize the NHERI Lehigh and FIU EFs.

NHERI Lehigh Researcher Workshop Agenda – Monday, Dec 3, 2018

Advanced Simulation for Natural Hazards Mitigation, Challenges and Opportunities for Multi-Hazards Engineering

Start	End	Room #	Description	Presenter	Title
8:00 am	8:30 am	B101	Registration and Continental Breakfast	Lehigh EF Staff	-----
8:30 am	8:40 am	B101	Welcome, Objectives, and Agenda Review	James Ricles	RTMD Facility PI
8:40 am	8:50 am	B101	Introduction to Lehigh EF Staff and Website	Chad Kusko	ATLSS Admin. Dir.
8:50 am	9:05 am	B101	Preparing a Competitive NSF Proposal	James Ricles	RTMD Facility PI
9:05 am	9:40 am	B101	NHERI Lehigh Experimental Capabilities and Protocols	James Ricles	RTMD Facility PI
9:40 am	10:15 am	B101	NHERI Lehigh IT Operations and Cyber Infrastructure	Tommy Marullo	RTMD Systems Adm
10:15 am	10:25 am	-----	Break	-----	-----
10:25 am	10:45 am	B101	NHERI Lehigh Facility Project Portfolio	Richard Sause	RTMD Facility PI ATLSS Faculty
10:45 am	11:00 am	B101	Proposal Preparation and Post-Award Expectations	Chad Kusko	RTMD Ops Mgr
11:00 am	11:40 am	H150	NHERI Lehigh Experimental Facility Tour	Peter Bryan	ATLSS IT Mgr.
11:40 am	12:40 pm	A200	Networking Lunch	-----	-----
12:40 pm	1:10 pm	B101	FIU Overview; Challenges and Opportunities for Multi-Hazards Engineering	Arindam Chowdhury	WOW Facility PI
1:10 pm	1:40 pm	B101	RTHS: Background, Theory, and Implementation	James Ricles	RTMD Facility PI
1:40 pm	2:10 pm	B101	Lehigh-FIU Hybrid Wind Simulation Developments	Amal Elawady	WOW Facility
2:10 pm	2:40 pm	B101	NHERI SimCenter Overview and Capabilities	Greg Deierlein	NHERI SimCenter co-Director
2:40 pm	3:00 pm	B101	Laboratory Exercises: Damper Characterization Testtng; Real-Time Multi-Hazard Hybrid Simulation of Tall Building System	Liang Cao Safwan Al-Subaihawi	RTMD Res Scientist Research Assistant
3:00 pm	3:10 pm	-----	Break	-----	-----
3:10 pm	4:10 pm	H150	Hybrid Simulation: Hands-on Participation	Lehigh EF Staff	-----
4:10 pm	4:45 pm	B101	Questions, Closing Remarks, and Evaluations	Lehigh EF Staff	-----