



SimCenter ECO Activities

- Educate the NHERI community about simulation capabilities
 - Annual state-of-the-art analysis report
 - Webinars
 - Workshops
 - NHERI Summer Institute
 - Programming bootcamp for students, postdocs and faculty: July 30 – August 3
 - Presentations at NHERI EFs, technical conferences
- Provide the NHERI community with fundamental knowledge and technical skills
 - Educational Apps
 - Participation in REU program
 - Programming bootcamp for students, postdocs and faculty: July 30 – August 3
 - Webinars: *Early Career Researchers* webinar series
- Foster community building
 - Webinars: in particular *NHE 101* & *Early Career Researchers* webinar series
 - Workshops
 - Programming bootcamp for students, postdocs and faculty: July 30 – August 3
 - Presentations at NHERI Summer Institute, EF workshops, professional conferences
 - Collaborate with researchers to accomplish blind prediction competitions together.
 - Testbeds
 - Slack channels

Educational Apps

- Target Audience
 - Undergraduate and graduate students.
- Goals:
 - Provide students with understanding of basic NHE concepts.
 - Demonstrate potential for simulation-based investigation and learning.
 - Build community by engaging university faculty and students.
 - Provide a foundation for community members to advance NHE education.
 - Test cases for SimCenter tool-development efforts.



Educational Apps

Nonlinear Earthquake Analysis of MDOF Oscillator

Nonlinear Analysis of a Pile Group

Earthquake vs Wind Response of a Nonlinear MDOF Oscillator

Educational Apps

- To facilitate classroom use
 - Multi-format documentation:
 - Training videos demonstrate capabilities
 - Online text-based documentation provides details
 - PPT slides and classroom exercises coming for fall 2018.
- To facilitate extension by community members:
 - Source code available on GitHub



To think about

- Would you use these apps in your classes?
- What supplemental materials would make it easier for you to use the apps?
- What other apps would you like to have?

