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?