Workshop: Deploying SimCenter Tools to Enhance Wind Engineering Research and Practice

Attendees will receive an allocation of computing time on HPC systems at the Texas Advanced Computing Center (TACC) enabling access to the NHERI SimCenter and DesignSafe applications.

Training Objectives:

- **Introduction to SimCenter Resources**: Provide wind engineering researchers with an overview of the diverse tools developed by SimCenter to enhance research on wind engineering and regional hurricane risk.
- **Hands-on Training**: Facilitate a practical, interactive learning experience with real-world examples that showcase how SimCenter's applications can be used for wind engineering.
- **Community Engagement**: Strengthen connections with the wind engineering community and gain insights on how SimCenter's tools can better support ongoing and future research efforts.

Target Audience:

- Graduate students, researchers, and professionals in the field of wind engineering.
- Attendees interested in applying advanced computational and UQ tools in wind engineering, particularly those working with computational fluid dynamics (CFD) and performance-based wind engineering.

Suggested Date & Time:

- May 19, 2025 [1:00 pm - 4:00 pm]

Workshop Agenda:

- Introducing NHERI-SimCenter developers and participants [15 min]
- Computational wind load evaluation with **WE-UQ** [60 min]

Break [15 min]**:**

- Performance-Based Wind Engineering using **PBE** [45 min]
- Regional wind-induced damage assessment using **R2D** [45 min]

Additional Notes:

- **Pre-Session Preparation**: For efficient use of training time, participants are encouraged to install the necessary software tools and complete an initial example before attending the session. Detailed instructions for this setup will be provided for registered participants before the workshop.

- **Tool Availability**: Ensure that the DCV (Docker Container Version) of all relevant tools is accessible to participants prior to the training session.
- **Non-Parallel Session**: This is a dedicated session with no competing parallel session to ensure attendees don’t miss anything.