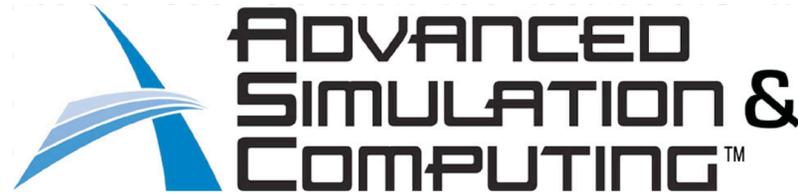




THE UNIVERSITY OF TEXAS AT AUSTIN WHAT STARTS HERE CHANGES THE WORLD



# PECOS plans for Lab Interaction & Predictive Science Education

PECOS

# Workshops and Symposia

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- Workshops
  - Last year ICES and Trilabs put together a V&V/UQ workshop
  - ICES / Sandia workshop on Multiscale Modeling (last 2 years)
  - Discussing follow ups for both
  - Centers should coordinate an annual workshop series
- Symposia
  - Planning mini symposia on V&V/UQ at conferences

# Lab interaction plans

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- Graduate student interactions
  - Thesis committee membership in both modeling and V&V/UQ domains
  - Co-advisement by members of Trilabs involving extended stay at the labs
- ICES Visitor's program
  - Hosting Trilab visitors as part of the ICES visitor's program
- Contributing software
  - Discussing how to integrate the PECOS UQ toolkit into Dakota and/or Trilinos

# Predictive Science Education

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- Additions to current courses
  - Concepts of V&V/UQ added to the Computational Applied Mathematics (CAM) modeling course
  - Exploring adding V&V/UQ to the Aerospace and Mechanical Engineering core classes
  - Summer short course on Inverse Analysis and UQ
- New Courses
  - Introduction to Uncertainty Quantification
  - Optimization and Inverse problems

# Predictive Science and the CAM Program

- CAM Program
  - Challenging interdisciplinary graduate program in Computational and Applied Mathematics
  - Currently requires proficiency in 3 areas
    - A. Applicable Mathematics
    - B. Numerical Analysis and Scientific Computation
    - C. Mathematical modeling of a natural, engineered, or other system



V&V/UQ will become an essential component to the CAM program

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