Sean E. Phenisee

Curriculum Vitae

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Education

- *Direct PhD degree*, **University of Washington** (Seattle, WA)
  Aeronautics and Astronautics, Sept. 2016 – *Present*
- *B.Sc. degree*, **University of Washington** (Seattle, WA),
  Aeronautics and Astronautics, Sept. 2012 – June 2016

Honors and Awards

- College of Engineering Dean's Fellowship, Sept. 2016
- Graduated with Magna Cum Laude, June 2016
- NSF Research Experience for Undergraduate, June 2015
- Annual Dean's List, 2013-2014 and 2014-2015

Publications

- Kim, E., Martinez, A.J., Phenisee, S.E., Kevrekidis, P.G., Porter, M.A., and Yang, J., "Direct measurement of superdiffusive energy transport in disordered granular chains," Nature Communications, 2018.

Peer-reviewed Papers on Conference Proceedings

- Phenisee, S.E., Tien, S.L., Salviato, M., "A Spectral Stiffness Microplane Model For Unidirectional Composites," 21st International Conference on Composite Materials, Xi'an, 20-25th, Aug. 2017.
- Salviato, M., Phenisee, S.E., "A Spectral Stiffness Microplane Formulation for Damage and Fracture of Unidirectional Composites," Engineering Mechanics Institute Conference 2017, June 04-07, San Diego, CA.

Teaching and Advising

- Teaching Assistant, 2017, AA 432/532: "Composite materials for Aerospace Structures" (undergraduate level, Aeronautics & Astronautics, University of Washington), Lecturer: Prof. Jinkyu Yang
- Graduate Advisor, helped undergraduate students in senior capstone project to perform Finite Element Analysis using commercial software and to develop post-processing algorithm in Python

Additional Skills

- Finite Element Analysis: *Abaqus*
- Programing Language: *MATLAB, PYTHON, FORTRAN*
- Computer-Aided Design: *SolidWorks, Rhinoceros*
- Bilingual: English and *Korean*

Academic / Research / Experience

Research in Composite Structures (Advisor: Prof. Marco Salviato), 09/2016 – *Present*

- Developing a computational model of unidirectional carbon fiber reinforced polymer to capture the initiation of damage under loading
- Multiscale structural analysis on representative volume element of textile composite by applying periodic boundary conditions

Senior Capstone Project (Advisor: Prof. Eli Livne), 01/2016 – 06/2016

- Performed analysis on the dynamic stability and control of the research UAV model
- Perform Wind tunnel testing to characterize the aerodynamic behavior of the research UAV model
- Performed analysis on the structural integrity and keep track of weight and balance

Research intern in LEMS in UW (Advisor: Prof. Jinkyu Yang), 07/2015 – 09/2015

- Undergraduate intern in Laboratory of Engineering Materials and Structures
- Performed experimental verification of energy diffusion and localization disordered granular chain
- Setup the experiment based on the simulation model and analyze the data