

Michael Andersen

- Experience
- 2003–2007 University of California LA Los Angeles, CA
PhD Research Student
- Familiar with the High Average Power Laser (HAPL) program.
 - First wall tungsten foam design (CAD/FEM).
 - Damage/Failure examination of US International Thermonuclear Experimental Reactor (ITER) blanket design.
 - Surface roughening mechanisms for tungsten exposed to laser, ion, and x-ray pulses.
 - ASME criteria for boiler and nuclear components design.
- 2003–2007 University of California LA Los Angeles, CA
Teaching Assistant
- Instructed Thermodynamics, Mathematics of Engineering, and Design (Mechanical/Aerospace).
 - Student Evaluation 9.0 scale (83.7% Response Rate):
 - Communication/Presentation Skills: **8.78**
 - Organization: **8.44**
 - Overall Approval: **8.69**
- 2006 University of California LA Los Angeles, CA
Center for Excellence in Engineering and Diversity (CEED)
- Tutored Thermodynamics and Differential Equations
 - Managed independent study sessions in a classroom environment.
 - Wrote homework assignments and lead instructional period.
- Education
- 1999–2007 University of California LA Los Angeles, CA
 - Bachelor of Science Degree in Aerospace Engineering, 2003.
 - Masters of Science Degree in Mechanical Engineering, 2004.
 - Master's Thesis: *Computational Design of Metallic Foam Structures for Intense Power Absorption*, 2004.
 - Publication: *Thermo-Mechanical Analysis of a Micro-Engineered Tungsten-Foam Armored IFE FW*, 2005.
 - Doctor of Philosophy in Aerospace Engineering *Manufacturing and Design* with minors in *Solid Structures* and *Fusion Engineering*.
 - Ph.D. Dissertation: *Roughening of Surfaces under Intense and Rapid Heating*.
 - Publication: *Surface Roughening Mechanisms for Tungsten Exposed to Laser, Ion, and X-Ray Pulses*, 2006.
 - Planned Publication: *2D Surface Roughening of a Constantly*

Stressed Solid utilizing the effect of Dislocation Dynamics (PRL).

- *Planned Publication: 2D Transient Thermal Load Driven Surface Roughening utilizing Dislocation Dynamics (PRL).*

Strengths

Interpersonal Collaboration, Time Restricted Presentations, Failure Analysis, Design/Modeling, FEM

Software

Microsoft Office: PowerPoint, Word, Excel, Publisher.

Design Software: SolidWorks, Pro/E

Finite Element Analysis: ANSYS, Comsol, Cosmos, NASTRAN