

Education

- **University of Arizona** Tucson, AZ
Ph.D. Applied Mathematics (in progress) 2007 – present
 - GPA: 3.67 (*4.00 scale*)
 - Advisor: Joceline Lega
 - Completed M.S. in Applied Mathematics December, 2009
 - Relevant courses: Applied Analysis, Probability, Geometry, Agent-Based Simulation and Numerical Analysis
- **Northern Arizona University** Flagstaff, AZ
B.S. Mathematics and Physics 2001 – 2005
 - GPA: 3.84 (*4.00 scale*)
 - Dean’s List: Fall 2002 – Fall 2005
 - Relevant courses: Ordinary and Partial Differential Equations, Real Analysis, Computational Physics and Mechanics

Awards, Grants & Honors

Raytheon Advanced Scholars Program Fellowship (\$12 000)	2007 – 2011
Mildred Fenton and Carrol Lane Scholarship (\$250)	2005 – 2006
Raytheon Scholarship (\$1 900)	2005 – 2006
Karan and Terence Hall Undergraduate Mathematics Scholarship (\$1 440)	2005
Physics and Astronomy Chair’s Scholarship (\$500)	2004
Vesto M. Slipher Memorial Physics and Astronomy Junior Scholar Award (\$305)	2003 – 2004
James and Susan Casebeer Scholarship (\$580)	2003 – 2004
NAU Centennial Scholarship (\$1 000)	2001 – 2005

Teaching Experience

- **Introductory Mechanics (PHY151L)** Northern Arizona University
Teaching Assistant Spring 2006
 - Ran weekly laboratory sessions affirming lessons learned in lecture.
 - Responsible for apparatus setup, lecturing and grading laboratory notebooks.

Presentations

- *Designing an Academic Website*

- Program in Applied Mathematics SWIG Seminar – University of Arizona, Tucson, AZ (February 3, 2012).
- *Lyapunov Exponents and Dynamical Systems*
 - Program in Applied Mathematics Brown Bag Seminar – University of Arizona, Tucson, AZ (December 2, 2011).
- *Lyapunov Exponents and Modes for Hard Disk Systems*
 - Program in Applied Mathematics Research Tutorial Group (RTG) – University of Arizona, Tucson, Arizona (December 18, 2009).
- *Agent-Based Simulation*
 - Program in Applied Mathematics Brown Bag Seminar – University of Arizona, Tucson, AZ (October 23, 2009).
- *Low Reynolds Number Swimming*
 - Program in Applied Mathematics Third Semester Term Paper Presentation – University of Arizona, Tucson, AZ (May 15, 2009).
- *Phase Retrieval Algorithms and the TIE*
 - Department of Mathematics Research Experience for Undergraduates (REU) Seminar – University of Illinois, Urbana-Champaign, Urbana, IL (August 4, 2005).
- *Reaction Mechanisms of Astrophysical Ices Under X-ray Bombardment*
 - APS Four Corners Meeting Poster Session – University of New Mexico, Albuquerque, NM (October 15-16, 2004).
 - NASA Arizona Space Grant Symposium – Arizona State University, Tempe, AZ (April 21, 2005).

Participation in Workshops and Conferences

- **American Physical Society, Four Corners Section Fall Meeting** Albuquerque, NM
University of New Mexico *October 15 – 16, 2004*
- **NASA Arizona Space Grant Symposium** Tempe, AZ
Arizona State University *April 21, 2005*

Other Research Experience

- **Mathematics Department REU Internship** University of Illinois, Urbana-Champaign
Phase Retrieval *June 2005 – August 2005*
 - Investigated algebraic approaches to phase retrieval problems using the transport-of-intensity equation (TIE).
- **NAU NASA Undergraduate Space Grant** Northern Arizona University
X-ray Irradiation of Photoprocessed Ices *August 2004 – May 2005*

- Investigated chemical evolution of photoprocessed molecular ices undergoing X-ray irradiation.

Academic Service and Contributions

- Tutored mathematics and physics at the NAU Learning Assistance Center
January 2002 – May 2004
- Student member of the NAU chapter of the Society of Physics Students (SPS)
August 2003 – December 2005

Professional

- **Senior Systems Engineer** Raytheon Missile Systems
Performance Simulations Department *May 2005 – present*
 - Responsible for the development, integration and analysis of mathematical models for the design of
 - * Exoatmospheric missile interceptors.
 - * Infrared countermeasures.
 - * Naval fleet self-defense weapons.

Miscellaneous

- DoD, DSS Security Clearance
2006 – present