

Education

- 2003 **Ph.D. Physics, Thesis title: Nuclear Structure of ^{150}Sm , Oregon State University, Corvallis, OR.**
Thesis Advisor: Ken Krane
- 2000 **M.S. Physics, Oregon State University, Corvallis, OR.**
- 1998 **B.S. Physics, Northwest Nazarene University, Nampa, ID.**
- 1998 **B.S. Chemistry, Northwest Nazarene University, Nampa, ID.**

Teaching Experience

- 2013-Present **Professor of Physics, Point Loma Nazarene University, San Diego, CA.**
General Physics I & II, University Physics, Physical Science, Electricity and Magnetism I & II, Analytical Mechanics, Excel, MATLAB, Modern Physics Class and Lab, Advanced Lab, Nuclear Physics Class and Lab, Embedded Systems, Physics of Sound and Music Class
- 2009–2013 **Associate Professor of Physics, Point Loma Nazarene University, San Diego, CA.**
General Physics I & II, University Physics, Physical Science, Electricity and Magnetism, MATLAB, Modern Physics Class and Lab, Nuclear Physics Class and Lab, Optics seminar, SEASANDs summer institute content specialist 2010
- 2006-2009 **Assistant Professor of Physics, Point Loma Nazarene University, San Diego, CA.**
General Physics I & II, Class and Lab, University Physics Class and Lab, Physical Science Class and Lab, Earth Science, Solid State Physics, Electricity and Magnetism; SEASANDs summer institute content specialist 2007
- 2003-2006 **Assistant Professor of Physics, Erskine College, Due West, SC.**
General Physics I & II, Class and Lab, Modern Physics Lab, Modern Physics II, Electricity and Magnetism I & II, Advanced Lab, Freshman Seminar, Computer Modeling, Introductory Information Technology, Senior Seminar Coordinator

Memberships

- American Physical Society, American Association of Physics Teachers

Curriculum Development

- Developed of Virtual Labs in General Physics for COVID-19 PLNU
- Developed Physics of Music Labs for PLNU
- Developed Advanced Labs for PLNU
- Developed Nuclear Physics Labs for PLNU
- Developed Modern Physics Labs for PLNU
- Developed General Physics I and II Labs for PLNU
- Developed Physical Science Labs for PLNU
- Developed University Physics I and II Labs for PLNU
- Developed Modern Physics Labs for Erskine College
- Developed Advanced Labs for Erskine College

Research experience and Student Research

- 2021 Led Student Work in Makerspace development
- 2020 Led Student Research in Online Curriculum Development
- 2015 Led Student Summer Research: Investigating Parameters for Sonoluminescence
- 2014 Led Student Summer Research: Development of Sonoluminescence System
- 2014 Led Student Summer Research: Methods of Gamma-Ray Coincidence using NaI Detectors
- 2013 Led Student Summer Research: Initial development of Underwater ROV system
- 2005 Led Student Summer Research: Gamma ray analysis at University of Kentucky
- 1998-2003 Gamma ray spectroscopy: analysis of large data sets, on-line data acquisition at a large accelerator facility, problem solving, and development of analysis techniques.

Honors and Awards

- 2014 co-Pi "Scholarships to Support STEM majors Computational Sciences Minors" NSF grant
- 2010 Host Professor for Teachers Noticing Teachers
- 2006 Nominated for Erskine's Younts Excellence in Teaching Award
- 2005 Bell Grant for Student Research in Nuclear Physics
- 2004 Nominated for Erskine's Younts Excellence in Teaching Award
- 1998 Outstanding Senior in Physics
- 1998 Outstanding Senior in Chemistry
- 1996 Academy of Science award for outstanding talk in Physics and Chemistry
- 1994 Outstanding Freshmen in Physics

Publications

Papers

- 2018 γ -ray spectroscopy of ^{150}Sm through the β decay of ^{150}Pm ($T = 2.7$ h) and $^{150}\text{Eu}^m$ ($T = 12.8$ h), Phys. Rev. C 98, 034311.
- 2007 (co-author) N=90 region: The decays of $^{152}\text{Eu}^{m.g}$ to ^{152}Sm , Phys. Rev. C 76, 034319
- 2005 (co-author) Identification of a pairing isomeric band in ^{152}Sm , Phys. Rev. C 71, 041303(R)
- 2003 (co-author) Low-Energy Coexisting Band in ^{154}Gd , Phys. Rev. Lett. 91, 102501

Talks and Posters

- 2018 Gamma-Ray Spectroscopy of Samarium-150, Faculty Scholarship Day at PLNU
- 2015 We can Write, Right, Right? Talk at American Association of Physics Teachers National Winter Meeting, San Diego
- 2012 Using JiTT with Joomla, Talk at Winter Meeting of American Association of Physics Teachers
- 2010-2012 TILE presentation: Using Technology in the Physics Class
- 2007-2011 Freshman Convocation at PLNU: The Universe through the Lens of Physics
- 2004 Student Poster Presented Southeast Section of APS (2004): A Study of ^{150}Nd through Inelastic Neutron Scattering

Committee and University Service

- 2021-present Member of the Faculty Development Committee
- 2018-present Member of the Diversity Committee
- 2012-2018 Member of the General Education Committee
- 2012- 2015 Department Chair of Physics and Engineering
- 2010- present Pre-health interview Panel
- 2010 Chair of the Strategic Planning Task 1A Technology Team

- 2009-present Established Chapter of the Society of Physics Students, a society which would help promote physics (such as going to K-12 schools), provide connections for students to the broader physics community, and help bring students in our department together.
- 2008-2011 Member of the Institutional Effectiveness Committee
- 2008-present Physics coordinator for PLNU Science Honors Weekend
- 2008 Search Committee for the Dean of the College of Arts and Sciences
- 2004-2005 Erskine College Technology Committee

Additional Training

Computational Physics, Optical Electronic Systems, Physics Education Seminar, Safety in the Classroom, New Physics Faculty Workshop

Community Involvement

Served as Sidewalk Astronomer at Bayside Community Center

Developer and Presenter at STEM expo

Teaching Science Lessons in Elementary Schools, science workshops (Science BLITZ, Science Day at Erskine), Sunday School teacher, SEASANDs, Church Board Member