

## Research Interests

Stars, in general and especially their evolution, final fate, and nucleosynthesis.  
 Chemical evolution, growth of every isotope at every point in spacetime.  
 Astrobiology, synthesis and delivery of bioessential elements to habitable systems.  
 Gamma-ray astronomy, from radioactive isotopes.  
 Neutrino astronomy, in general and especially from pre-supernova stars.  
 Community driven, open-knowledge, software instruments.

## Recent Appointments

- 2022 – Associate Editor-in-Chief, American Astronomical Society [Journals](#)
- 2019 – Senior Lead Editor, American Astronomical Society [Journals](#)
- 2016 – Lead Editor, American Astronomical Society [Journals](#)
- 2009 – Scientific Editor, American Astronomical Society [Journals](#)
- 2008 – Professor, SESE, ASU

## Recent Honors

- 2015 [Simons Fellow](#) in Theoretical Physics
- 2014 [Fellow](#), American Physical Society
- 2013 Student Student Cluster Competition Prize, [Supercomputing](#)

## Recent Research Funding

- Since 2008: \$26.5M, \$7.3M to ASU
- 2022 – 2025 NASA PI \$476K, *Probing The Interior Composition Of White Dwarfs*
- 2019 – 2024 NSF Co-PI \$2M, *AccelNet-WOU: International Research Network ...*
- 2017 – 2022 NSF PI \$2.3M, *Modules for Experiments ... (MESA)*
- 2014 – 2022 NSF Co-PI \$11.2M, *Physics Frontiers Center, JINA-CEE*

## Recent Education and Outreach Activities

- 2019 – Principal Content Provider, American Astronomical Society [YouTube](#) Channel
- 2011 – 2022 Director & Lecturer, [MESA Summer School](#), UC Santa Barbara
- 2015 – 2018 Largest [college-credit](#) eligible astronomy course in the world, ~10,000 students/yr
- August 2015 First [college-credit](#) eligible MOOC in the world

## Publication Summary

