

JJ Hermes

Assistant Professor of Astronomy, Boston University
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Professional Appointments

- Assistant Professor of Astronomy, [Boston University](#), 2019–
- NASA Hubble Fellow, [University of North Carolina at Chapel Hill](#), 2015–2018
- ERC Postdoctoral Research Fellow, [University of Warwick](#), 2013–2015
- Reporter, [The Chronicle of Higher Education](#), 2007–2008

Education

- University of Texas at Austin, Ph.D., August 2013
- University of Texas at Austin, B.S. Physics, B.A. Astronomy, May 2007

Professional Service

Leadership & Advisory Roles

- Member, Zwicky Transient Facility II Community Science Advisory Committee, 2020–
- External Participant, SDSS-V, 2020–
- Steering Committee, *TESS* Asteroseismology Consortium (TASC), 2017–
- Co-Chair, *TESS* Asteroseismology Consortium (TASC) Working Group 8 (Compact Objects), 2017–
- Deputy Chair, K2 Users Panel, 2016–

Conference Organizing Committees

- Member, Scientific Organizing Committee, *TESS* Science Conference II, Boston, MA, 2021 August
- Chair, Scientific Organizing Committee, TASC5/KASC12 Workshop, Boston, MA, 2019 July
- Co-Chair, Scientific Organizing Committee, *Kepler* / K2 Science Conference V, Glendale, CA, 2019 March
- Member, Scientific Organizing Committee, 4th TASC Meeting, Aarhus, Denmark, 2018 July
- Member, Scientific Organizing Committee, *Kepler* / K2 Science Conference IV, NASA Ames, 2017 June

Peer Review

- NASA ADAP & XRP Review Panelist; NSF AAG & GRFP Review Panelist; STFC Reviewer
- NASA Keck Telescope Allocation Committee, 2020–
- Panelist, *Chandra* TAC (Cycle 20); Panelist, *HST* TAC (Cycles 25, 29 & 30)
- Journal referee for *Nature*, *The Astrophysical Journal*, *MNRAS*, *Science Advances*, and *A&A*

External Research Support

- 2021, *HST* Cycle 29 #16642 & #16719, Co-I, **\$90,771**: “A legacy survey for evolved planetary systems”
- 2021, *TESS* Cycle 4 GI Proposal, **PI, \$70,000**: “High-Speed Observations of White Dwarfs in *TESS* Cycle 4”
- 2019, *HST* Cycle 26 #15871 & #15915, Co-I, **\$22,824**: UV properties of supernova survivors
- 2019, *TESS* Cycle 2 GI Proposal, **PI, \$50,000**: “White Dwarf Variability in the Ecliptic North”
- 2019, NSF AAG, **Co-PI, \$428,031**: “Collaborative Research: The Coeval Degenerates Survey”
- 2018, *TESS* Cycle 1 GI Proposal, **PI, \$50,000**: “White Dwarf Variability in the Ecliptic South”
- 2018, K2 Cycle 6 GO Proposal, **PI, \$50,000**: “K2 Observations of Variable WDs in Fields 17, 18 and 19”
- 2017, K2 Cycle 5 GO Proposal, **PI, \$50,000**: “K2 Observations of Variable WDs in Fields 14, 15 and 16”
- 2017, *HST* Cycle 25 #15073, Co-I, **\$59,775**: “Extreme evolved solar systems”
- 2017, *HST* Cycle 25 #15072, Co-I, **\$10,229**: “Classical novae hibernation: a definitive confirmation”
- 2017, *HST* Cycle 24 #14912, Co-I, **\$5,085**: “High-precision asteroseismology of GW Lib”
- 2016, *HST* Cycle 24 #14691, **PI, \$61,962**: “Unraveling the oscillations of the richest pulsating WD”
- 2016, K2 Cycle 4 GO Proposal, **PI, \$50,000**: “K2 Observations of Variable WDs in Fields 11, 12 and 13”
- 2015, Hubble Fellowship, **\$348,157**: “Breaking New Ground: Measuring Interiors in the Stellar Graveyard”
- 2015, *HST* Cycle 23 #14076, Co-I, **\$12,273**: “A legacy UV spectroscopic survey of the 13pc WD sample”

Selected Awarded Telescope Proposals

- 2021, 30 hours NOAO, 4.1-m SOAR telescope: Goodman spectroscopy [PI, 2021B-007]
- 2019, 1346 short-cadence targets, *TESS* Sectors 14-26, *TESS* Space Telescope [PI, G022028]
- 2018, 399 short-cadence targets, *K2* Campaigns 1-19, *Kepler* Space Telescope [PI, 6 GO programs]
- 2018, 9 nights NOAO, 4.1-m SOAR telescope: Goodman spectroscopy [PI, 2018A-0188 & 2018B-0138]
- 2016, 6 orbits, Cycle 24, *Hubble* Space Telescope: COS [PI, Program 14691]
- 2016, 11 hr, 9.8-m Southern African Large Telescope: RSS [PI, 2016-1-SCI-017 & 2016-2-SCI-030]
- 2015, 5 hr, 8-m Very Large Telescope: UVES [PI, ESO 095.D-0409]
- 2015, 4 nights, 3.6-m New Technology Telescope: EFOSC2 [PI, ESO 095.D-0406]
- 2015, 13 nights, 2.5-m Isaac Newton Telescope: IDS [PI, I/2015A/P04, I/2014B/P06]
- 2014, 4 nights, 4.2-m William Herschel Telescope: ISIS/ULTRACAM [PI, 2014A/P14 & 2014A/P15]

Invited Talks (Additional Contributed Talks Online: speakerdeck.com/jjhermes)

Colloquia:

- Pitt/CMU (2022-04-18)
- MIT (2021-10-19)
- STScI / Johns Hopkins (2020-02-19)
- IfA / U. Hawaii (2018-05-16)
- NRAO / U. Virginia (2017-11-09)
- University of Texas at Austin (2017-10-31)
- The Ohio State University (2017-10-19)
- Louisiana State University (2016-10-21)
- University of Montreal (2016-04-07)
- University of Toronto (2016-04-01)
- Wesleyan University (2016-02-24)
- Keele University (2014-11-19)
- Armagh Observatory (2014-03-13)
- University of Washington (2013-10-31)

Invited Reviews:

- 5th TASC Workshop; Leuven, Belgium (2022-07)
- Hydrogen Deficient Stars; Armagh, UK (2018-09-11)
- PHysics of Oscillating STars; France (2018-09-05)
- 10th KASC Workshop; Birmingham, UK (2017-07-18)
- Rotation, pulsation & chemical peculiarities in stars; Windermere, Cumbria, UK (2016-09-14)
- Sociedade Astronômica Brasileira (2016-08-31)
- K2 SciCon; Santa Barbara, CA (2015-11-03)
- 8th KASC Workshop; Aarhus, Denmark (2015-06-15)
- RAS Specialist Meeting on Asteroseismology, London, UK (2015-05-08)
- 6th KASC Workshop; Sydney, Australia (2013-06-27)
- Planets Around Stellar Remnants; Arecibo, Puerto Rico (2012-01-24)

Selected Press Coverage

- 8.9-hr Rotation in the Partly Burnt Runaway Stellar Remnant LP 40-365 ([Hermes et al. 2021](#))
[LiveScience](#): Runaway star caught streaking across Milky Way at 2 million mph — in wrong direction
- A class of partly burnt runaway supernovae remnants ([Raddi et al. 2019](#))
[Scientific American](#): Zombie Stars Shine On after Mystery Detonations
- Core crystallization and pile-up in the cooling sequence of white dwarfs ([Tremblay et al. 2019](#))
[Los Angeles Times](#): One day our sun will solidify into a giant crystal orb
- Confirmation of outbursts in the coolest pulsating white dwarfs ([Hermes et al. 2015b](#))
[Sky & Telescope](#): White Dwarf Stars with Hiccups
- The cleanest indirect detection of gravitational waves using visible light ([Hermes et al. 2012c](#))
[Nature](#): Stellar duo tests Einstein's theory
[BBC News](#): Gravitational waves spotted from white-dwarf pair
- Discovery of the most massive pulsating white dwarf, GD 518 ([Hermes et al. 2013c](#))
[Astronomy Magazine](#): Astronomers discover pulsations from crystalized dying star
- Discovery of the 12.75-minute WD+WD binary J0651+2844 ([Brown et al. 2011](#))
[National Geographic](#): "Death Dance" Stars Found — May Help Prove Einstein Right

JJ Hermes: Publications

19 first-author refereed publications, 110 other-author refereed publications

Refereed citations: 3442 Total refereed citations of first-author refereed publications: 766
h-index: 34 (as of August 23, 2022)

Teaching and Outreach

- **Instructor:** CAS AS 102, “The Astronomical Universe,” Boston University, Spring 2019, Spring 2020
- **Instructor:** CAS AS 105, “Alien Worlds,” Boston University, Fall 2019, Fall 2020
- **Instructor:** CAS AS 441, “Observational Astronomy,” Boston University, Spring 2022
- **Instructor:** GRS AS 850, “Astrophysics Seminar,” Boston University, Fall 2020, Spring 2021
- **Instructor:** AST 152M, “Stellar Astronomy Lab,” UT-Austin, Fall 2010
- **Supervision** of research led by graduate students Ben Roulston (BU & CfA, defended 2022), Tyler Heintz (BU, ongoing), Lou Baya Ould Rouis (BU, ongoing), Joseph Guidry (BU, ongoing) & Isaac Lopez (BU, 2019); undergraduates Madison VanWynngarden (BU), Jenna LoMonaco (BU), Corinna Peña (Butler), Odelia Putterman (Goldwater Scholar, BU), Alex Granados (Wellesley), Huyongqing Chen (BU, 2020), Kera Regan-Byrne (BU, 2019), & Krishan Kumar (BU, 2019); high school students Charlie Walsh & Ben Rosenthal
- **Co-supervision** of research led by graduate students Zach Vanderbosch (UT-Austin, defended 2021) and Josh Reding (UNC, ongoing); undergraduates Joseph Guidry (UT-Austin, 2021), Stephen Fanale (UNC, 2017), Brandon Castillo (UNC, 2018), and George Miller (UT-Austin, 2011)
- **Outreach talks:** Exploring the Cosmos, joint with Katie Mack, JMP Statistically Speaking Event (2022 January); Maria Mitchell Observatory Science Speaker Series (2021 June); KITP Teachers’ Conference: White Dwarfs as Cosmic Labs (2021 March); Maria Mitchell Observatory Science Speaker Series (2020 July); Astronomy on Tap Boston (2020 March); Amateur Telescope Makers of Boston (2019 October); Galloway Ridge Retirement Community, Pittsboro, NC (2018 June); Holly Springs High School, Holly Springs, NC (2018 March); Staunton River Star Party, Staunton, VA (2017 October); CHAOS Astronomical and Observational Society, Chapel Hill, NC (2016 March); *Astronomy Days*, North Carolina Museum of Natural Sciences, Raleigh, NC (2016-2018 January); National Space Academy, Leicester, UK (2013 November); Elm Grove Elementary School, Austin, TX (2011 April)
- **Founding organizer and host:** Astronomy on Tap Triangle (<https://twitter.com/aottriangle>), a monthly outreach event at Fullsteam Brewery, Durham, NC

Fellowships and Awards

- 2019: **Scialog Fellow, Research Corporation for the Advancement of Science**
- 2015: **Hubble Fellow, 2015-18**
- 2015: **65th Lindau Nobel Laureate Meeting**, selected as participating young scientist
- 2013: **David Benfield Memorial Fellowship in Astronomy, UT-Austin**
- 2012: **Fred T. Goetting, Jr. Memorial Endowed Presidential Fellowship, UT-Austin**

Contact Information:

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