

STEPHEN R. CASE

Historian of Science

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EDUCATION

PhD in the History and Philosophy of Science – August 2014

Dissertation title: “John Herschel’s Stellar Astronomy: Making Stars Physical, 1816–71”

University of Notre Dame, Notre Dame, Indiana

Master of Arts in Physics – December 2007

University of Mississippi, University, Mississippi

Bachelor of Science in Physical Science – May 2005

Minors: Mathematics & Writing

Olivet Nazarene University, Bourbonnais, Illinois

ACADEMIC POSITIONS

Olivet Nazarene University

- 2021–present Professor, Department of Chemistry and Geosciences
- 2016–2020 Associate Professor, Department of Chemistry and Geosciences
- 2014–2016 Assistant Professor, Department of Chemistry and Geosciences
- 2008–2010 Assistant Professor, Department of Physical Science

Mount Vernon Nazarene University

- 2016–2019 Adjunct Instructor, Graduate and Professional Studies (online)

Kankakee Community College

- 2009–2010 Adjunct Instructor, Math and Science Division

University of Mississippi

- 2008 Adjunct Instructor, School of Engineering
- 2007–2008 Fellow, Center for Math and Science Education
- 2005–2007 Fellow, NSF North Mississippi GK-8 Grant

Centre for Medieval & Renaissance Studies, Oxford, England

- 2004 Undergraduate Student Fellow, St. Michael’s Hall

ADMINISTRATIVE POSITIONS

Olivet Nazarene University

- 2021–present Director, University Honors Program
- 2016–2021 Associate Director, University Honors Program
- 2008–2021 Director, Strickler Planetarium

PUBLICATIONS**Books:**

Making Stars Physical: the Astronomy of Sir John Herschel, University of Pittsburgh Press (2018).

First Fleet (science fiction novel), Axiomatic Press (2015).

Research Articles:

“A ‘Confounded Scrape’: John Herschel, Neptune, and Naming the Satellites of the Outer Solar System,” *Journal for the History of Astronomy* 50.3 (2019): 306–25.

“‘Land-Marks of the Universe’: John Herschel against the Background of Positional Astronomy,” *Annals of Science* 72.4 (2015): 417–34.

“How Bright Planets Became Dim Stars: Planetary Speculations in John Herschel’s Double Star Astronomy,” *Endeavour* 38 (2014): 27–34.

“‘These Divine Animals’: Physicality of the Stars in Platonic and Aristotelian Thought,” *Newberry Essays in Medieval and Early Modern Studies, Vol. 7: Selected Proceedings of the Newberry Center for Renaissance Studies 2013 Multidisciplinary Graduate Student Conference* (2013): 35–40.

“‘Insufferably Stupid or Miserably Out of Place’: Frederick A. P. Barnard and His Scientific Instrument Collection in the Antebellum South,” *Historical Studies in the Physical Sciences* 39.4 (2009): 418–43.

Other Articles:

“Naming the Universe,” *Aeon Magazine* (February 2020)
reprinted in *American Scientist* (May/June 2020)

with Tiffany Stone Wolbrecht, “Southern Skies: Astronomy in the Upside Down,” *The Planetarian* 47 (September 2018): 36–42.

“Place of Departure: Careers in Discovery are not Constrained to Astronomers Alone,” *NSF National Radio Astronomy Observatory blog* (September 1, 2018).

“Pierre-Simon de Laplace,” entry in *Dictionary of Christianity and Science* (Zondervan Publishing, Grand Rapids, MI: 2017).

“Case for the Liberal Arts,” *Olivet: the Magazine* (Winter 2016).

“Two Weeks in Italy Report: ‘Como Lo Sai?’ means ‘How do you know?’,” *The Planetarian* 45 (June 2016): 78–80.

“Divine Animals: Plato, Aristotle, and the Stars,” *Mercury* 42.3 (Summer 2013): 28–33.

“Evidential Reasoning in Astronomy and Cosmology: Some Reflections,” *History of Science Society Newsletter* 42 (Apr 2013): 32–34.

“Children in God’s House: Teaching Cosmology at a Nazarene University,” in *Telos: the Destination for Nazarene Higher Education*, eds. Gregg A. Chenoweth and Barbara M. Ragan (Bourbonnais, IL, 2011): 58–61.

Edited Volume:

with Marv Bolt, *Engaging the Heavens: Inspiration of Astronomical Phenomena V*
Astronomical Society of the Pacific Conference series volume 468, 2012.

Reviews:

- Steve Fentress, *Sky to Space: Astronomy Beyond the Basics with Comparisons, Ratios and Proportions* in *The Planetarian* 47 (Sep. 2018): 80.
- Rebekah Higgitt, *Maskelyne: Astronomer Royal* in *Journal for the History of Astronomy* 47 (4): 443–44.
- William H. Waller, *The Milky Way: An Insider's Guide* in *The Planetarian* 45 (Sep. 2016): 97.
- Athena Coustenis and Thérèse Encrenaz, *Life Beyond Earth* in *The Planetarian* 45 (Mar. 2016): 94.
- William Sheehan and Christopher Conselice, *Galactic Encounters: Our Majestic and Evolving Star-System, From the Big Bang to Time's End* in *Journal for the History of Astronomy*, in *Journal for the History of Astronomy* 46 (4): 497–98.
- Thomas Hamilton, *Dwarf Planets and Asteroids: Minors Bodies of the Solar System*, in *The Planetarian* 44 (Sep. 2015): 76.
- Thérèse Encrenaz, *Planets: Ours and Others: From Earth to Exoplanets* and James Lequeux, *Birth, Evolution, and Death of Stars*, in *The Planetarian* 44 (Sep. 2015): 76–78.
- Charles Mollan, ed., *William Parsons, 3rd Earl of Rosse: Astronomy and the Castle in Nineteenth-Century Ireland*, in *Journal for the History of Astronomy* 46 (3): 381–82.
- (with Michael Crowe) Michael Hoskin, *Discoverers of the Universe: William and Caroline Herschel*, in *Isis* 102 (2011): 780–1.
- Helge S. Kragh, *Conceptions of Cosmos: A History of Cosmology*, in *The Planetarian* 37 (June 2008): 67–68.
- Nick Kanas, *Star Maps: History, Artistry, and Cartography*, in *The Planetarian* 37 (Sep. 2008): 82–83.
- Nachum Dershowitz & Edward M. Reingold, *Calendrical Calculations*, in *The Planetarian* 37 (Dec. 2008): 83–84.
- James Mullaney & Wil Tirion, *The Cambridge Double Star Atlas*, in *The Planetarian* 38 (Sep. 2009): 60.

Recent Fiction:

- “Parchment Sky,” *Beneath Ceaseless Skies* 325 (March 2021)
- “Ten Things to Consider When Blinking,” *Stargazers: Microtales from the Cosmos* (December 2020)
- “Wolves of Horus System,” *Twilight Worlds Anthology* (December 2020)
- “The Gunsmith of Byzantium,” *OnSpec* 114 (Fall 2020)
- “The Law of Conservation of Baseball,” *Hybrid Fiction* (September 2020)
- “Abacus of Ether,” *Beneath Ceaseless Skies* 278 (May 2019)
- “The Chora Gate,” *Mysterion* (2018)
- “Occultation of the Bright Aspects,” *Orson Scott Card's Intergalactic Medicine Show* 66 (2018)
- “Thistledown Sky,” *Shimmer* 46 (2018)
- “Apotheosis,” *Daily Science Fiction* (October 5, 2018)

Columns:

- Skywatch monthly astronomy column, *The Kankakee Daily Journal* (April 2008–present).
- Planetarium show review column, *The Planetarian: quarterly journal of the International Planetarium Society* (2008–10).

PRESENTATIONS

- “Beyond the Shadow of the Telescope: Recontextualizing John Herschel” panel organizer and participant, History of Science Society Annual Meeting, Utrecht University, Netherlands, 2019.
- “Two Weeks in Italy Report,” Illinois State Planetarium Meeting, Triton College, River Grove, Illinois, 2016.
- “‘Land-Marks of the Universe’: John Herschel and Positional Astronomy,” Midwest Junto for the History of Science, University of Wisconsin, Madison, 2015.
- “Evidential Reasoning on the Nature of the Heavens in Early Astronomy,” ISLA-Mellon Conference Evidential Reasoning in Astronomy and Cosmology, University of Notre Dame, 2013.
- “Physicality of the Stars in Platonic and Aristotelian Thought,” Newberry Center for Renaissance Studies Multidisciplinary Graduate Student Conference, Chicago, 2013.
- “‘These Divine Animals’: Plato and His Commentators on the Stars,” Midwest Junto for the History of Science, Missouri University of Science and Technology, 2012.
- “John Herschel and the Beginnings of Double Star Astronomy,” History of Science Society Annual Meeting, Cleveland, 2011.
- “John Herschel and the Origins of Double Star Research: Proof, Parallax, and Planets,” Biennial Workshop on the History of Astronomy, University of Notre Dame, 2011.
- “Context and Perspective,” Faith and Science Symposium, Center for Faith and Culture, Olivet Nazarene University, 2009.
- “The F. A. P. Barnard Collection and Scientific Atmosphere in the South,” Southern History of Science and Technology Conference, Georgia Institute of Technology, 2008.
- “How Complete is Complete: Mechanics and the Millington-Barnard Collection,” Second International Scientific Instrument Collections in Universities Conference, University of Mississippi, 2007.
- “Strings and Things: String Theory, Astronomy, and the History of Science in the Classroom,” NASA Mississippi Space Grant Consortium Teacher’s Conference, Southern Mississippi University, 2007.

AWARDS

- American Institute of Physics research grant, 2020–21 (\$1,000)
- Craighton T. and Linda G. Hippenhammer Faculty Scholarship Grant 2020–21 (\$1,000)
- American Institute of Physics research grant, 2018–19 (\$2,500)
- Craighton T. and Linda G. Hippenhammer Faculty Scholarship Grant 2018–19 (\$2,000)
- Craighton T. and Linda G. Hippenhammer Faculty Scholarship Grant 2016–17 (\$1,400)
- *Annals of Science* 2014 Essay Prize for “‘Land-Marks of the Universe’: John Herschel against the Background of Positional Astronomy.”
- *Lenses of Faith: Resources for Research in Nineteenth-Century Astronomy* 2014–15 College of Arts and Science Grant (\$7,267)
- *Wandering Stars: Planetarium Travel Funds for Area Public School Groups* 2014–15 Olivet Community Outreach Grant (\$2,000)
- John J. Reilly Center 2014 Phillip R. Sloan Prize for Graduate Research
- Notre Dame Institute for Scholarship in the Liberal Arts Graduate Student Research Award, 2013 (\$2,495 research grant)
- Notre Dame Institute for Scholarship in the Liberal Arts Mellon grant for interdisciplinary workshop: Evidential Reasoning in Astronomy and Cosmology, 2012.
- Robert P. Milner Award for Outstanding Male Graduate, Olivet Nazarene University, 2005.

TEACHING EXPERIENCE**Olivet Nazarene University, 2008–present**

- GEOL130: Introduction to Astronomy
- GEOL346: Tools of Astronomy & Planetarium Operations
- GEOL499: Topics in Astronomy
- HIST385: History of Science
- HONR110: Exploring Faith in Humanity
- HONR150: Human Disciplines
- HONR200: Humanity/Outside Influences
- HONR225: Issues in Society
- GNST 110: Freshman Connections
- Physical science lab supervisor
- PHYS121: College Physics I
- PHYS121: College Physics II
- ESS150: Planetary Astronomy
- ESS151: Stellar & Galactic Astronomy
- ESS151V: Stellar & Galactic Astronomy (online)
- ESS350: Science and Theology in Dialogue
- ESS370: Science in Society
- ESS390: Seminar in Earth & Space Science

Mount Vernon Nazarene University, 2016–2018

- ESSC-1044-GN070 Astronomy with Laboratory (online)

Kankakee Community College, 2009–2010, 2012

- MATH1814: College Algebra
- PHYS2624: Physics II
- PHYS2625: Physics III

University of Mississippi, 2006–2007

- ENGN101: Introduction to Engineering
- Physics laboratory teaching assistant

SERVICE & PROFESSIONAL ACTIVITIES

- President's Advisory Group, 2021–present
- University HLC Criterion 4 Subcommittee, 2021–present
- SCIO (CCCU-Oxford) Science, Christianity, and Society webinar, 2020–21
- Astronomy in Chile Educational Ambassador, 2019
- Coordinator, Annual Faculty Writing Retreat, 2018–present
- Facilitator, Faculty Writing Group, 2018–present
- Editor, *ELAIA: the Honors Journal of Olivet Nazarene University*, 2018–present
- General Education Task Force Committee, Olivet Nazarene University, 2017–18
- International Planetarium Society Week in Italy ambassador, 2016.
- Faculty sponsor, Honors Student Council, 2015–present.
- Advisory Committee, Center for Teaching and Learning, Olivet Nazarene University, 2014–2019.
- Honors Council, Olivet Nazarene University, 2014–present.

- Notre Dame/Bielefeld University 2014 International PhD Student Workshop Exchange participant, Bielefeld, Germany
- ISLA-Mellon Workshop Organizer, University of Notre Dame, 2013
- Research and Curatorial Intern, Adler Planetarium & Astronomy Museum, 2012–2014.
- Organizing Committee, Biennial History of Astronomy Workshops, University of Notre Dame, 2011–present.
- Member, History of Science Society, 2008–2010, 2014–present.
- General Education Committee, Olivet Nazarene University, 2009–2010.
- Coordinator, Great Lakes Planetarium Association Illinois state meeting, 2009.
- Steering Committee, International Planetarium Society Conference, Chicago, 2008.
- Delegate, NSF National GK-12 Conference, Washington, D.C. 2006.