

## Curriculum Vitae – July 2024

**Diane Turnshek**

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US Citizenship

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**Education:**    **University of Arizona**, Tucson, AZ  
Master of Science, Astronomy (1981)  
Dr. Eric R. Craine, advisor

**Villanova University**, Philadelphia, PA  
Bachelor of Science, Astronomy (1977)

**Experience:**    **Carnegie Mellon University**, Pittsburgh, PA  
Special Lecturer, Department of Physics (September 2012 to present)

- Instructor for introductory astronomy class and lab (Fall 2012, 2013, 2016, 2017, 2018 and Summer 2013, 2014, 2017, 2018, 2021, 2022, 2023, 2024)
- Instructor for experimental physics lab (Spring 2013, 2014, 2015, 2016)
- Taught MCS Core classes, Eureka! (Fall 2019, 2020, 2021, 2022), Propel “Science Communication” now called “Reading and Writing Science” (Spring 2020, 2021, 2022, 2023), and a series of wellness classes (Fall 2019 – current)
- Skyglow, 99-520, a 10-week research class, Summer 2020, 2021
- Physics demonstration manager
- CONCEPTS and Cosmic Connections outreach coordinator
- Summer Academy of Math and Science (SAMS) light pollution class instructor, second summer session 2018
- Faculty advisor for five student clubs

Instructor CMU OSHER Lifelong Learning class on light pollution “Return of the Bright Starry Night” (Summer 2017), Stars (2020) and an OSHER Lecture on sustainable housing (March 2021)

Instructor, English Department, upper-level creative writing class (Summer 2013, 2024)

Outreach Coordinator, Department of Physics (November 2010 to September 2012)

- Administrator for departmental business
- Instructor for introductory astronomy class and lab (Summer 2011, 2012, Fall 2011)

Special Lecturer, Department of Physics (August 2008 to November 2010)

- Instructor for introductory astronomy class and lab (Fall 2008, 2009, 2010)

**University of Pittsburgh**, Pittsburgh, PA  
Adjunct Lecturer, Department of Physics and Astronomy (August 2001 to present)

- Instructor for courses “Stars, Galaxies and the Cosmos,” “Stonehenge to Hubble” and “Physics and Science Fiction”

- Faculty advisor for the Dr. Who Club (2012 to 2018)

**Allegheny Observatory**

- Lecture Series Coordinator (2007 to 2023, with Kerry Handron to present)
- Adjunct Lecturer and Outreach Coordinator (appointment May 1, 2015 to April 30, 2024)

**Astronomy Outreach Coordinator (January 1989 to 2005)**

- Utilized grants from NASA and NSF to extend educational boundaries of the University to the surrounding community, especially targeting gifted children in grades K-12
- Participated in annual University Science Academy and ran career discussions with high school students

**Astronomy Researcher, Allegheny Observatory (January 1981 to May 1984)**

- Observed exoplanets with Multichannel Astrometric Photometer array on the 30" Thaw refractor

**Osher Lifetime Learning Institute, University of Pittsburgh, Pittsburgh, PA**

**Lecturer**

- Instructor for astronomy class (May – June 2010, May – June 2014)
- Co-Instructor for class on light pollution "Return of the Bright Starry Night," (May – June 2017)
- Lecturer on sustainable housing (March 2021)

**Prometic, Dundalk, Co Louth, Ireland**

**Test development for DSST Astronomy Exam (August 2015)**

- Standard Setting work

**Parsec, Inc., Pittsburgh, PA**

**President, Board of Directors, January 2012 – Dec 2014, January 2018 to 2019**

**Executive Director 2022 to present**

- Coordinated four branches of the non-profit
- Founded a new lecture series/workshop at CMU for promoting literacy in Pittsburgh, Partners in Speculative Fiction

**Sapling Learning, Austin, TX**

- Online astronomy content writer (May to September 2013)

**St. Vincent College, Latrobe, PA**

**Adjunct Faculty, Physics Department (January 2003 to December 2011)**

- Instructor for introductory astronomy course and laboratory

**Adjunct Faculty, English Department (Spring 2009)**

- Developed and taught upper-level creative writing class "How to Write SF/F/H"

**Seton Hill University, Greensburg, PA**

**Adjunct Faculty, Writing Popular Fiction MFA Program (January 2002 to June 2011)**

- Lecturer
- Mentored graduate students

**Community College of Allegheny County, Pittsburgh, PA**

Adjunct Faculty, Dept. of Physics and Chemistry (August 2008 to December 2009)

- Instructor for up to three introductory astronomy classes per term

**Sinclair Community College**, Dayton OH

Adjunct Faculty (August 2009 to June 2010)

- Instructor for online astronomy labs

**Squonk Opera Company**, Turtle Creek, PA

Outreach Coordinator (September 2007 - October 2008)

- Set up pre-events for the outdoor show, Astro-rama
- Coordinated astronomy outreach activities with K-12 students
- Scientific advisor for artists and writers
- Interacted with the media

**Science Fiction and Fantasy Writers of America**

Board of Directors, Eastern Regional Director (July 2004 to June 2007)

- Ran the annual weekend business meeting and Nebula Awards Ceremony in May 2007 and the Publishers Reception each November in New York City
- Coordinated volunteers
- Provided guidance to SFWA committees
- Worked with educational groups to promote literacy
- Created promotional materials publicizing SFWA authors
- Interacted with the media

**Carnegie Science Center**, Pittsburgh, PA

Planetarium Operator (January 1982 to May 1984)

- Developed and implemented planetarium shows

**Carlow College**, Pittsburgh, PA

Adjunct Faculty (August 1981 to 1982)

- Instructor of astronomy, geology and Earth science courses

**Chatham College**, Pittsburgh, PA

Instructor (January 1982)

- Instructor of intensive astronomy course

**University of Arizona**, Tucson AZ

Research Assistant in Astronomy Department (September 1978 to August 1981)

- Studied objects using the Near Infrared Photographic Sky Survey
- Published book of cool standard stars
- Wrote popular astronomy articles

Boston University, Boston MA

Graduate Teaching Assistant in Astronomy Department (September 1977 – May 1978)

- Assisted Astronomy 101 classes and labs

## Publication List

**ORCID ID:** <https://orcid.org/0000-0001-5259-5534>

**Google Scholar:** <https://scholar.google.com/citations?hl=en&user=jpGgJqwAAAAJ>

**ResearcherID:** P-5982-2018

**Preprint:**

<https://www.essoar.org/doi/10.1002/essoar.10507575.1>

“The benefit of multiple angle observations for visible band remote sensing using night lights”

**Peer-reviewed papers:**

Two newly discovered S stars in a list of faint red objects, Craine, E. R.; Turnshek, D. E.; Turnshek, D. A.; Boeshaar, P. C., *Astronomical Society of the Pacific, Publications* (ISSN 0004-6280), Vol. 95, March 1983, p. 185-191. 03/1983

An Optical Three-Way Split - Triple Quasar PG1115+08, Weymann, R. J.; Latham, D.; Angel, J. R. P.; Green, R. F.; Liebert, J. W.; Turnshek, D. A.; Turnshek, D. E.; Tyson, J. A. Publication: *SCIENCE NEWS* V.118, p. 4, 1980, 00/1980

The triple QSO PG1115+08 - Another probable gravitational lens, Weymann, R. J.; Latham, D.; Roger, J.; Angel, P.; Green, R. F.; Liebert, J. W.; Turnshek, D. A.; Turnshek, D. E.; Tyson, J. A., *Nature*, Vol. 285, p. 641-643, June 26, 1980

Spectroscopic and polarimetric observations of NGC 1333 and the surrounding dark cloud complex, Turnshek, D. A.; Turnshek, D. E.; Craine, E. R. *Astronomical Journal*, Vol. 85, p. 1638-1643, 12/1980

**Science Publications:** (Publications before 1980 are under the name Diane Routsis.)

Our Pittsburgh Constellation, D Turnshek, *Proceedings of the 29th International Astronomical Union: Astronomy in Focus XXIXA*, Cambridge University Press, p. 497, 2016

“Our Pittsburgh Constellation,” *Great Lakes Planetarium Conference Proceedings*, October 27, 2012, <http://www.glpaweb.org/proceedingsab2012>

Carnegie Mellon University Physics Concepts Program (P63), Diane Turnshek and Leonard Kisslinger, Carnegie Mellon University, *Astronomical Society of the Pacific, Connecting People to Science*, Baltimore, MD, July 2011

CCD Imaging of Four Southern Polar Ring Galaxies, Turnshek, D. E.; Sackett, P. D.; Jarvis, B. J., *American Astronomical Society, 180th AAS Meeting, #49.12; Bulletin of the American Astronomical Society*, Vol. 24, p. 810, 05/1992

Book-Review - an Atlas of Digital Spectra of Cool Stars, Turnshek, D. E.; Turnshek, D. A.; Craine, E. R.; Boeshaar, P. C., *SKY AND TELESCOPE* Vol. 73, NO. 4/APR, p. 395, 1987 (S&T Homepage) 04/1987

An Atlas of Digital Spectra of Cool Stars (Types G, K, M, S and C), D. E. Turnshek, D. A. Turnshek, E. R. Craine, P. C. Boeshaar. Astronomy and Astrophysics Series, Vol. 1. Western Research Company, 2030 E. Speedway Suite 213, Tucson, Arizona 85719, USA. 6+17 pp.+75 charts. Price US\$ 30.00 (1985). ISBN 0-934525-00-5. Publication Date: 00/1985

MK Criteria Applied to a Scanner Spectral Atlas of the Cooler Stars, Turnshek, D. E.; Boeshaar, P. C. The MK Process and Stellar Classification, Proceedings of the Workshop in honor of W.W. Morgan and P.C. Keenan, held at the University of Toronto, Canada, June 1983. Edited by R.F. Garrison. Toronto: University of Toronto, David Dunlap Observatory, 1984, p. 77, 00/1984

Ground-Based Astronomy in the Space Age, Turnshek, D.; Turnshek, D.; Vilas, F., the 1980 Scientific Meeting of the Astronomical-Society, ASTRON. SOC. OF THE PACIFIC. MERCURY Vol. 10, p. 22, 1981, 00/1981

Spectroscopic Observations of Near Infrared Photographic Sky Survey Objects, Turnshek, D. E.; Craine, E. R.; Boeshaar, P. C.; Turnshek, D. A., Bulletin of the American Astronomical Society, Vol. 12, p. 463, 03/1980

The Spectrum of 1548C27, Craine, E. R.; Boeshaar, P. C.; Turnshek, D. A.; Turnshek, D. E., Bulletin of the American Astronomical Society, Vol. 12, p. 843, 09/1980

Spectroscopic Observations of Two New Pure S Stars Authors: Boeshaar, P. C.; Craine, E. R.; Turnshek, D. E., Bulletin of the American Astronomical Society, Vol. 12, p. 828, 09/1980

Near Infrared Photographic Sky Survey I. Some Survey Applications, Craine, E. R.; Imhoff, C. L.; Turnshek, D. A.; Routsis, D. E. Bulletin of the American Astronomical Society, Vol. 12, p. 406 03/1979

Near Infrared Photographic Sky Survey II. Spectroscopy of Survey Objects in a Selected Field, Routsis, D. E.; Turnshek, D. A.; Craine, E. R., Bulletin of the American Astronomical Society, Vol. 12, p. 406, 03/1979

Near Infrared Photographic Sky Survey III. Spectroscopy and Polarimetry in a Dark Cloud Complex, Turnshek, D. A.; Craine, E. R.; Routsis, D. E., Publication: Bulletin of the American Astronomical Society, Vol. 12, p. 406, 03/1979

Near infrared photographic sky survey. 1: Catalog of red stellar objects, Craine, E. R.; Duerr, R. E.; Horner, V. M.; Imhoff, C. L.; Routsis, D. E.; Swihart, D. L.; Turnshek, D. A., 08/1979

## **Information Reflecting the Candidate's External Reputation**

### **1.) Citations and Awards:**

Dark Sky Defender Award from the International Dark-Sky Association (2015)

Amateur Astronomers Association of Pittsburgh, Lois Harrison Award (2018)  
Carnegie Science Center Honorable Mention: Most Inspiring Educator Award (2022)

**2.) Invited public talks:**

MENSA National Gathering, "Using Pseudoscience to Teach Science" and "Science of the Future," Summer 2012  
Great Lakes Planetarium Conference, Keynote speaker, "Our Pittsburgh Constellation" October 27, 2012  
Allegheny Observatory Public Lecture Series in Astronomy  
    "Science and Science Fiction"  
    "Using Pseudoscience to Teach Science"  
    "Online Astronomy Education"  
    "De-Light the Night" February 20, 2015  
    "Organics on Mars" June 15, 2018  
    "The Impact of Satellites on Optical Astronomy" April 21, 2023  
    "The Future of Astronomy" September 20, 2024  
TEDxPittsburgh, Byham Theater, Pittsburgh, PA, "De-Light the Night," May 23, 2015  
Mars New Year, Mars, PA, "My Martian Adventure," May 2015  
PA Conference for Young Women in Physics, "This Way Up," April 2016  
STARLIGHT, BEYOND LIGHT POLLUTION Leadership Training Forum, La Palma, Canary Islands, "6000 Hostages," July 6, 2016  
MENSA Regional Gathering, "De-Light the Night," Mars, PA, September 4, 2016  
Café Scientifique, Carnegie Science Center "Light Up the Sky with Stars," December 12, 2016  
Mahoning Valley Astronomical Society, West Farmington, OH, "Your Light Pollution Defense Kit," March 25, 2017  
Ignite Talk, SFWA's Nebula Awards Weekend, Pittsburgh, PA, "Lights Out," May 18, 2017  
Dark Skies Event, Canaan Valley, Tucker County, WV, "Dark Skies," July 25, 2017  
First Unitarian Church of Pittsburgh, Sunday Morning FORUM, Pittsburgh, PA "Light Switch" November 5, 2017  
Rittenhouse Astronomical Society, Franklin Institute, Philadelphia, PA, "Light Pollution Defense Kit," November 8, 2017  
2018 Public Library Author Series, Uniontown, PA, "Turning Teens into Published Authors," January 20, 2018  
Cooper-Siegel Community Library, Pittsburgh, PA, "The First Martians," June 21, 2018  
STEM Speaker Series, Robert Morris University, "Dark Skies over Pittsburgh" June 27, 2018  
Dark Skies Event, Canaan Valley, Tucker County WV, "Protecting Spectacular West Virginia Dark Skies," August 11, 2018  
MENSA Regional Gathering, "Cosmological Magnetic Fields," Mars, PA, September 2, 2018  
Steel City Speculative Series, Triangulation Reading, Steel Valley Roasters, Pittsburgh, PA, November 5, 2018  
Dark Skies Reading at CMU, "Artificial Light Survey of Nighttime Pittsburgh," September 11, 2019 (with author Mary Soon Lee)  
International Dark Sky Association Annual General Meeting "Fueling Outreach with New Data," November 11, 2019

TEDxCMU Virtual Innovation Expo “International Dark Sky Association Interview,”  
October 26, 2020

Carnegie Science Center Café Scientifique, “Are Dark Skies in Our Future?” October 5,  
2020

Spectroscopy Society of Pittsburgh, “Dark Skies: An Endangered Natural Resource,”  
October 14, 2020

Western Pennsylvania American Association of Physics Teachers, “Skyglow,” November  
7, 2020

Astronomical Society of the Pacific, “Skyglow, a 10-week, Summer, Remote, Research  
Class on Dark Skies” December 5, 2020

The Frick, “Where Have the Stars Gone?” January 2021

“Light Pollution 101” for the City of Pittsburgh Department of Mobility and  
Infrastructure, March 11, 2021

Colorado International Dark Skies Association (with Richard O’Brien), “Light Pollution  
Project Exchange,” March 11, 2020

Temporal Belongings Conference: The Material Life of Times, “Alteration in the  
Experience of Dark Nights Due to Artificial Light,” March 16, 2021

The Frick, “In Conversation: The Art and History of the Night Sky,” April 8, 2021

PA Conference for Young Women in Physics, “Blue Sky Thinking, with Stars,” April 24,  
2021

And many, many more talks, including the Foreign Policy Association’s Great Decisions  
lecture and a panel on “Cities and Infrastructure” at the IntersectCMU Conference.

The full list of > 100 talks and media interviews is up to date on [dianeturnshek.com](http://dianeturnshek.com).

#### Guest lectures for classes at CMU:

Physics Department class “Public Speaking and Writing for Grad Students” with Amy  
Stetten (2015 - 2017)

“Martian Architecture Design,” taught by Christine Ciardullo, Spring 2016

“Alien Linguistics,” taught by Thomas Werner Fall 2017

“Lighting Architecture,” taught by Cindy Limauro, undergraduate, Spring 2018, 2019  
and graduate course, Spring 2018, 2019

Intercultural Communication Center talk on communicating physics with international  
teaching assistants, Winter 2018

“Beyond Earth” Dietrich College Freshman Seminar taught by Peter Freeman and  
Thomas Werner (April 2020, 2021)

“Futuristic explorations” taught by Ralph Vituccio at CMU’s Entertainment Technology  
Center (March 2021, February 2022, February 2023, January 2024)

Physics Junior/Senior Seminar (Spring 2022, 2023, 2024)

“Dark Skies and the 2024 Total Solar Eclipse” Graduate Science Writing class taught by  
Pittsburgh Magazine Editor Virginia Lynn (March 2024)

#### **3.) Editor, Triangulation: Speculative Fiction, Parsec Ink**

A Confluence of Speculative Fiction (2003)

Dark Skies (2019)

Extinction (2020)

Habitats (2021)

#### **4.) Offices Currently Held**

At-large member elected to IAU Commission Organizing Committee (2018 to 2021, 2022 to 2024)

B7: Protection of Existing and Potential Observatory Sites (working with the UN), Head of Technical Working Group

#### **Professional Society Membership:**

International Astronomical Union

American Astronomical Society

American Physical Society

Science Fiction and Fantasy Writers of America (Board of Directors, Eastern Regional Director 2004 to 2007)

#### **Other memberships:**

Astronomical Society of the Pacific

Amateur Astronomers Association of Pittsburgh

Dark-Sky International

Astronomical League

#### **5.) Committee Work outside the University:**

Faculty advisor and mentor for Pitt researcher and astronomy outreach organizer Anna Voelker (Ohio State) since 2015 (Anna Voelker won the 2018 \$100,000 OSU President's Prize, is a 2018 Brooke Owens Fellow, and is being mentored by astronaut Anousheh Ansari.)

CSC Buhl Academy Fellow (Spring 2015)

Worked with City of Pittsburgh's Office of Sustainability to organize International Year of Light and Earth Hour events (2015 and 2016)

Member of Mayor-Elect Bill Peduto's Transition Team (November and December 2013)

Participated in AAS Congressional Visits Day and Communication with Washington, (2010, 2011 and 2013) and the Space Exploration Alliance Congressional Blitz (2017)

Ran Teen Programming at WorldCon in 2001 and writing workshops at many more conferences

Founder/executor of Alpha, the SF/F/H Workshop for Young Writers, a 12-day, genre, residency, writing workshop for teens 14 to 19 years old, (2002 to 2019)

Creator of the Pyr Street Team, a viral marketing venture in publishing

Developer of small press, publishing company PARSEC Ink, edited the first of its yearly Triangulation anthologies in 2003

Founder of the WorD writing/critiquing group (meeting biweekly 1996 – present)

Worked with Sally Ride and the Expanding Your Horizons science outreach efforts

Education and public outreach (invited by pre-K-12 schools, gifted education programs, church groups, homeschoolers, AAAP, school clubs, PTOs, gifted education groups, etc.)

Podcasts at 365 Days of Astronomy and three times on Gateworld: "The Science of the Stargate Universe"

Founder of PghConstellation Astronomy Enthusiasts list, which promotes astronomy events of interest (2014 to present)

Member of the Teacher Advisory Panel at the Carnegie Science Center (2014 to 2019)

Participated in a NASTAR study on how to train citizens for civilian spaceflight, in a 6G centrifuge designed for astronaut training (June 2016)



Founder of the International Dark-Sky Association Pittsburgh Chapter, IDAPgh.org  
(March 2017 to present)

Board of Directors for the Pennsylvania Chapter of the International Dark Sky  
Association (2019 to present)

Curated three space art galleries since 2017 (at Assemble, Neu Kirche Contemporary Art  
Center, The Copyleft Gallery)

Organized book signings for over 300 authors since 2018

**Publicity:**

Delivered hundreds of public talks on astronomy, physics, light pollution, and writing  
Quoted in NYT, Post-Gazette, Pittsburgh Tribune-Review, Sky & Telescope, The Verge,  
The Washington Post, The Washington Examiner, The Philadelphia Citizen, The Times,  
The Dispatch, CMU's Piper, Tartan, and Home Page stories, University of Pittsburgh's  
Pitt News and University Times, NextPittsburgh, Christian Science Monitor, etc.

Interviewed on radio NPR's WESA station, KDKA, KCRW, NPR's Morning Edition, Canada  
Radio One, Bloomberg CityLab, The Allegheny Front, Hotel Mars: The Space Show, The  
John Batchelor Show, etc.

Filmed for KDKA evening news, Heinz History Center, PBS NewsHour,  
ABC/NBC/FoxNews (Scripps TV), NEWSY.com, Chinese Global Television Network,  
German and French public broadcasters ZDF & Arte, etc.

Full, up-to-date listing on dianeturnshek.com.

**6.) Consulting:**

Worked with Pittsburgh's Department of Mobility and Infrastructure DOMI on the Dark  
Sky Ordinances for Pittsburgh

Helped with development in Mellon Park, guiding contract language with respect to  
artificial lights at night

**7.) Contract and grant support:**

2015 AAS Travel Grant (\$1200) for IAU meeting, Honolulu Hawaii

2015 grant from the City of Pittsburgh for IAU conference presentation (\$640)

1989 to 2005, numerous NSF and NASA astronomy outreach grants through University  
of Pittsburgh

Two weeks of summer salary support from Tina Kahniashvili for outreach 2017, 2018,  
one week in 2024

One month of summer salary support from Rupert Croft for outreach 2020, 2021

**Grants, not including salary support:**

2015 Sprout Fund Big Idea grant recipient for "Cosmic Connections" (\$1000)

2014 Education Grant from SFWA for YA Lecture Series (\$2000 in 2014, \$3000 in 2015)  
and for Alpha, the SF/F/H Workshop for Young Writers (\$1000 in 2015, \$2500 in 2016)

2014 ProSEED Grant, CMU for YA Lecture Series (\$1500)

2014 Heinz Endowments Astronomical Footprint grant with the Pittsburgh City  
Department of Innovation and Performance (\$25,000) for "Our Pittsburgh  
Constellation"

2014 Heinz Endowments grant for Alpha, the SF/F/H Workshop for Young Writers  
(\$10,000)

2018 Metro21, "Artificial Light Survey of Nighttime Pittsburgh," with Stephen Quick,  
\$80K

## **8.) Reviews of Publications:**

Book-Review - an Atlas of Digital Spectra of Cool Stars, Turnshek, D. E.; Turnshek, D. A.; Craine, E. R.; Boeshaar, P. C., SKY AND TELESCOPE Vol. 73, NO. 4/APR, p. 395, 1987 (S&T Homepage) 04/1987

## **Service and Committee Work within Carnegie Mellon University:**

### **University:**

Faculty advisor for CMU Astronomy Club (2011 to present)  
Faculty advisor for Partners in Speculative Fiction CMU student club (2014 to present)  
Faculty co-advisor for CMU Rocket Command 2020 to present)  
Faculty advisor for KGB (2020 to present)  
Faculty advisor for Stuco: Science Fiction and Fantasy Literature (Jan 2012 to May 2014)  
Faculty advisor for Stuco: Mythology (Fall 2010 - Spring 2011)  
Thesis committee for CMU grad student Daniel Wilcox for his MFA in Art (2013 to 2015)  
Gelfand Center Education & Outreach Award Nomination Review Committee, Fall 2013  
Founder/executor of YA Lecture Series, now called the Speculative Lecture Series at CMU (2014 to 2019)  
Hosted Carnegie Mellon Women's Association events (2012, 2014, 2021)  
CMU Campus Outreach: Take Your Daughters and Sons to Work Day, Society for Women Engineers High School Event, Venus Transit Event, SciTech Day presenter, Admission Dept. Educational Day  
Faculty advisor for winning team of CMU engineering students in the HP-Intel "Life in Space" competition to make life better for the astronauts aboard the ISS (April 2017)  
Second place winner in the Mars City Design Competition (Architecture category) with CMU alumnus Matt Finlay. (November 2017)  
Staff Council Sustainability Committee member (2017 to present)

### **College:**

CMU Adhoc Special Faculty Committee for Q-Review (Fall 2013, 2016 to 2024)  
Huge Young Award Committee (2020 and Lead in 2021)

### **Departmental:**

CMU Women in Physics weekly lunch co-organizer (2010 to 2014)  
Crew 120, Mars Desert Research Station with CMU graduate student Nora Swisher (Dec. 2012), including speaking role in the 2015 documentary "Above and Below"  
Co-organizer of Constructive Interference, Women and Minorities in Physics (2020)  
Committee Head for Physics "Scotty Goes Green Team" (2019)  
Ran a full-day conference on light pollution "Dark Skies" (June 1, 2019)  
Member of Physics Outreach Committee (2020 to present)  
Organizational committee for the Conference for Undergraduate Women in Physics, January 2020

## **Contributions to Education:**

CMU Courses taught:  
MCS Core Classes:

Eureka! 38-101, Engage in Wellness: Looking Outward 38-330, Engage in Wellness: Looking Inward 38-230, Engage in Wellness: Looking Forward 38-430 (Fall 2019 to present)

Reading and Writing Science 38-304 (formerly Propel Science Communication) Spring 2020-2023), Engage in Wellness: Looking Inward 33-230, Engage in Wellness: Looking Forward 33-430, Engage in Wellness: Looking Outward 38-330 (Spring 2020 to present) Skyglow Research 99-520 Summer 2020, 2021

Intro to Astronomy, 33-124 (Fall, 2008, 2009, 2010, 2011, 2012, 2013, 2016, 2017, 2018, Summer 2011, 2013, 2014, 2017, 2018, 2021, 2024)

Summer Academy for Math and Science (SAMS) class on Astronomy: Light Pollution, Summer 2018

Experimental Physics, 33-104 (Spring 2013, 2014, 2015, 2016)

Physics Department class, "Teaching the TAs to Teach" (August 2012 to 2015, 2017, 2018)

English Department, 76-264 "SP PJ CREATV WRITNG" (Summer 2013, Summer 2024)

Pitt Courses taught:

Introduction to Astronomy, Astron 0089 (Summer 2013, 2014 and earlier classes)

Stonehenge to Hubble, Astron 0088 (Spring 2017, 2018, Summer 2016, Fall 2014, 2015, 2024)

Physics of Science Fiction, Physics 0089 (Spring 2012 and two earlier classes)

#### **Fiction and Nonfiction:**

"Tempered with Heat" Out of JJ's Attic Vol. 2, 1999.

"Dancing in the Light" December 1999, Analog Magazine

"Hullabaloo" July/Aug 2000, Analog Magazine

"Extreme Geas" Six from PARSEC, a PARSEC Ink anthology, JJ Walton, editor, 2000

"How to Write a Science Fiction and Fantasy Love Scene" June, July 2000 SF&F

Workshop Newsletter

"The Queen of Self-Help" Canadian SF magazine Challenging Destiny, No. 11, December 2000

Web-published SciFaiku poem "Vanadium" (Element #23) at iSciFiStory.com

"Alien Pygmalion" ROUGH BEASTS edited by Sandra Kasturi, Lone Wolf Publications, December 2001

"Decoupage" the-phone-book.com Version 9, March 1, 2003

"Sheep" the-phone-book.com Version 9, March 1, 2003

"21-Bubblegum Salute" the-phone-book.com Version 9, March 1, 2003

"Spark of Hope" storyhouse.com, August 18, 2004

"101 Ways to Show Your Characters Are in Love" February 2006 issue of SF&F Workshop Newsletter

Many Genres/One Craft, contributor, eds. Arnzen and Miller 2011

"Queen of Self-help" reprinted in the Hazard Yet Forward anthology, August 5, 2012

"Christmas on Mars" SF Signal Guest Post, Dec. 25, 2012

"Hullabaloo" reprinted in Drabblecast 276, March 19, 2013

"Asteroid Zoup" Liquid Imagination, May 10, 2013

"Great SF/F Stories by Women" SF Signal Mindmeld, July 24, 2013

"Science Fiction Technologies" SF Signal Mindmeld, Dec. 2013

"Moms Rule" Analog Magazine, April 2014

“Vegan” in Parch anthology, Triangulation, Parsec Ink, November 2014

“Etymology of WorD” in the anthology Knee Deep in Little Devils 2018

**Skills:**

MS Word, PowerPoint, Keynote, Outlook, Excel, HTML, printing/publishing software, technical writing, podcasting, public speaking, machine shop operation, CMU driving certification, motorcycle license, Red Cross First Aid, CPR and AED certification