

PROF. CARA BATTERSBY

CONTACT INFORMATION	University of Connecticut, Dept. of Physics 196A Auditorium Road, Unit 3046 Storrs, CT 06269-3046	Phone: (860) 486-3988 E-mail: cara.battersby@uconn.edu https://battersby.physics.uconn.edu/
RESEARCH INTERESTS	1) Star formation, gas dynamics, and the 3-D structure of our Galaxy's Central Molecular Zone (CMZ), 2) clustered star formation and its potential variation with environment, 3) the future of Far-IR astrophysics, and 4) how galaxy-scale processes affect the detailed physics of star formation.	
PROFESSIONAL PREPARATION	Assistant Professor University of Connecticut (on research leave AY16/17)	August 2016 - present
	Research Associate Smithsonian Astrophysical Observatory	September 2017 - present
	National Science Foundation (NSF) Postdoctoral Fellow Harvard-Smithsonian Center for Astrophysics	August 2016 - July 2017
	Submillimeter Array (SMA) Postdoctoral Fellow Harvard-Smithsonian Center for Astrophysics	Sept. 2013 - July 2016
	Ph.D. Astrophysics, University of Colorado, Boulder, CO, Adviser: John Bally <i>"The Structure, Kinematics, and Evolution of Massive Star and Cluster Forming Regions"</i>	2013
	M.A. Astronomy, Boston University, Adviser: Jim Jackson	2008
	B.S. Physics & Astronomy, University of Massachusetts Amherst <i>summa cum laude, Advisers: Min S. Yun & Grant Wilson</i>	2006
PUBLICATIONS	Cara Battersby has an h-index of 36, is an author on 79 refereed publications with a total citation count of 4,627 (computed August 2022 from the NASA Astrophysics Data Service Page). Complete publication list follows this CV.	
SELECTED HONORS, GRANTS, AND AWARDS	Summary: Cara Battersby has been awarded \$3.0M in extramural funding to UConn as PI or co-PI on ten grants from NSF, NASA, NRAO, and the Templeton Foundation.	
	<ul style="list-style-type: none">● Co-PI: National Science Foundation Astronomy and Astrophysics Grant 2022 "Collaborative Research: ACES Galactic Center Mass Flow" (\$232k)● PI: NSF Early CAREER Faculty Award, 2022 "CAREER: Shining STARS Amidst the Turbulence" (\$697k)● PI: NASA Astrophysics Data Analysis Program Grant, 2021 "3-D MC: Mapping Circumnuclear Molecular Clouds from X-ray to Radio" (\$466k)● PI: National Science Foundation Astronomy and Astrophysics Grant, 2021 "Uncovering the Seeds of Star Clusters across the Galaxy" (\$389k)● UConn Internal Grants (\$59k total): <i>PI: UConn STARS Program Awarded under CLAS DEI Initiative \$4k, Co-I: BRIDGE+ Program Awarded under the President's Commitment to Community Grant 2021 \$13k, Scholarship Facilitation Fund: 2019 \$1k, NFIP: 2017-2021 \$5k total, Co-I: Provost's Open Educational Resources Award 2017 \$10k, Co-I: Provost's Large Course Redesign Award 2017 \$26k.</i>	

- **Co-PI NASA SOFIA Archival Research Program** **2021**
“IGNITES: Investigating Galactic Nuclear Infrared Thermal Evolution of young Stars” (\$166k)
 - **Robert H. Goddard Honor Award** (<https://science.gsfc.nasa.gov/sci/awardswon>) **2019**
“For outstanding team performance resulting in the delivery of a scientifically compelling, executable, low-risk Origins Space Telescope mission concept.”
 - **PI: National Radio Astronomy Observatory** **2019**
Student Observing Support Grant (\$34k)
 - **Co-PI: National Science Foundation Campus Cyberinfrastructure Grant** **2019**
CC Compute: Shared Computing Infrastructure for Large-scale Science Problems (\$400k)*
 - **Co-I: NASA Balloon Mission:** **2019**
ASTHROS: Astrophysics Stratospheric Telescope for High-spectral Resolution Observations at Submillimeter-wavelengths (\$18k to UConn)
 - **NASA Group Achievement Award** **2019**
for the “substantial and effective scientific, technical, and management work in developing the Large Mission Concept Studies for the 2020 Astrophysics Decadal Survey.”
 - **Provost’s Letter of Recognition for Teaching Excellence** **2017, 2018, & 2019**
 - **Shortlisted (top 5 of candidates worldwide) for the** **2018**
Nature Research Awards for Inspiring Science
 - **PI: National Science Foundation Astronomy and Astrophysics Grant,** **2018**
“3-D CMZ: Unveiling the Structure of our Galaxy’s Central Molecular Zone” (\$390k)
 - **PI: Templeton Foundation Grant,** *“BiteScis: K12 Research Brief Engagement Pilot” (\$215k)* **2017**
 - **Appointed by NASA: Science & Technology Definition Team,** *Origins Space Telescope* **2016**
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SELECTED PRESS

- 2022 Astrobites: [Writing Astrobites in Your Courses!](#)
- 2022 CAREER Award Press: UConn Today: [2021-22 NSF CAREER Award Recipients](#), CT Mirror: [UConn faculty winning NSF CAREER awards at record-breaking pace](#), UConn Today: [UConn faculty winning NSF CAREER awards at record-breaking pace](#)
- 2021 Scientific American: [This Report Could Make or Break the Next 30 Years of U.S. Astronomy](#)
- 2021 UConn Today: [The Study of Big Data: How CLAS Researchers Use Data Science](#)
- 2021 How Stuff Works: [Gravitational Constant Is the “G” in Newton’s Law of Universal Gravitation](#)
- 2021 Ask a Scientist Podcast: [Dr. Cara Battersby – Stars and the Universe](#)
- 2021 Universe Today: [The Core of the Milky Way is an Extreme Place](#)
- 2021 Center for Astrophysics | Harvard & Smithsonian Weekly Science Update: [Cold Dust Cores in the Central Zone of the Milky Way](#)
- 2020 NASA Goddard Feature [Piercing the Dark Birthplaces of Massive Stars with Webb](#)
- 2019 Sky & Telescope [Astronomers Dream Big, Consider Four Future Space Telescopes](#)
- 2018 UConn Today [Researcher Profile](#)
- 2018 [Nature Research Awards for Inspiring Science](#)
- 2018 Forbes [NASA’s Next Flagship Mission May Be a Crushing Disappointment for Astrophysics](#)
- 2017 UConn Eclipse Viewing in the News: *Hartford Courant: UConn Eclipse Viewing; Partial Eclipse, Complete Awe for CT, Patch.com: Eclipse Viewing Tips; Eclipse Event; It was Eclipse and Ice Cream, Stamford Advocate: Sky Gazers Ready for Solar Eclipse*
- 2017 phys.org [The Lifetimes of Massive Star-Forming Regions](#)
- 2016 phys.org [The Milky Way’s central molecular zone](#)
- 2016 SciTechDaily [Astronomers Take A Closer Look at the Milky Way’s Central Molecular Zone](#)

- 2016 Astronomy Now *Unravelling the Milky Way's Central Molecular Zone*
- 2016 United Press International *New study details skeleton of the Milky Way galaxy*
- 2015 astrobit.es *The Skeleton of the Milky Way*
- 2015 AAS Nova *Companions for "Nessie" in the Milky Way's Skeleton*
- 2015 Sky & Telescope *Making Massive Stars*
- 2015 space.com *Milky Way 'Bones' Could Reveal Secrets About Our Galaxy*
- 2014 Sky & Telescope *Cooking up High-Mass Stars*

SELECTED
SUCCESSFUL
OBSERVING
PROPOSALS

Co-I, 9 hours , James Webb Space Telescope (JWST) Cycle 1	2021
<i>"Star Formation along the Galactic Dust Ridge: The Brick and Cloud C"</i>	
Over 130 hours as Co-I on the Jansky Very Large Array (JVLA)	2013-2022
Co-PI, 121 hours , Atacama Large Millimeter Array (ALMA) Large Program	2021
<i>"ACES: The ALMA CMZ Exploration Survey"</i>	
Co-PI, 119 hours , Atacama Large Millimeter Array (ALMA) Large Program	2019
<i>"ALMAGAL: ALMA Evolutionary study of High Mass Protocluster Formation in the Galaxy"</i>	
Over 150 hours as Co-I on the Atacama Large Millimeter Array (ALMA)	2013-2021
PI, 550 hours , Submillimeter Array (SMA)	2014-2017
<i>"CMZoom: The SMA Legacy Survey of the Central Molecular Zone"</i>	
PI, 60 hours , IRAM 30-m	2015
<i>"Mapping the Bones of the Milky Way"</i>	
Co-I, 200 hours , Atacama Pathfinder Experiment (APEX)	2014
<i>"H₂CO Thermometry of the CMZ to understand its low star formation rate"</i>	

INVITED
SCIENTIFIC
PRESENTATIONS

Summary: Cara Battersby has given 7 invited review/keynote talks, 54 invited conference presentations and colloquia, and 14 invited public talks since 2013.

Invited Review Talks (7 since 2013):

- Harvard-Heidelberg Star Formation Workshop Review Talk, Cambridge, MA (11/13/19), Kavli Institute of Astronomy and Astrophysics *Forum on Gas in Galaxies*, Peking, China (09/10/19), Oxford *Origins Space Telescope Meeting*, Oxford, UK (09/05/2018), EWASS *Star formation at the centre of the Galaxy* Prague (06/26/2017), CIERA Fellows at the Frontiers at Northwestern (09/01/2016), Keynote speaker for *Mass Assembly from Clouds to Clusters* at the Sixten Center for Astrophysics, Italy (07/07/2014), BASH Symposium at the University of Texas Austin (10/07/2013).

Invited Conference Presentations and Colloquia (54 since 2013):

- **2022:** Max Planck Institute for Radio Astronomy in Bonn Colloquium, Germany (Virtual - 07/01/22), Bath, Bristol and Cardiff - Great Western Seminar Series, UK (Virtual - 05/25/22), Pontificia Universidad Católica de Chile, Chile (Virtual - 04/26/22), Queen's University Astronomy Seminar, Canada (Virtual - 01/31/22).
- **2021:** Colby College (Virtual - 10/25/21), University of California at Santa Cruz Astrophysics Colloquium (Virtual - 05/05/21), University of Cologne Astrophysics Colloquium, Germany (Virtual - 04/26/21), American Museum of Natural History Astronomy Seminar (Virtual - 04/13/21).
- **2020:** 11th CMB-S4 Workshop: Cosmology and Astrophysics in the Next Decade Talk in the *Our Galaxy* Session (Virtual - 08/11/2020), NASA Decadal Studies Session at the American Astronomical Society (01/08/2020)
- **2019:** NASA SOFIA Science Center Colloquium (12/18/19), University of Toronto Astrophysics Colloquium (12/11/19), Purdue University Astrophysics Seminar (10/28/19), NASA

Goddard Space Flight Center Colloquium (10/01/19), Max Planck Institute for Astronomy Koenigstuhl Colloquium, Germany (07/05/2019), University of Toledo Astrophysics Colloquium (04/18/2019), Origins Space Telescope Overview at the Center for Computational Astrophysics (06/21/19), University of Massachusetts Astrophysics Colloquium (04/11/2019), The Space Astrophysics Landscape for the 2020s and Beyond, Invited Overview and Panel Chair of *Extreme Star Formation and Time Domain in Astrophysics* (04/03/2019), Yale Astrophysics Colloquium (01/24/2019)

- **2018:** Brown University Astronomy Seminar (11/29/2018), MIT Astrophysics Colloquium (11/06/2018), University of Arizona Astrophysics Colloquium (10/4/2018), Harvard-Smithsonian Center for Astrophysics Galaxies & Cosmology Seminar (03/27/2018), Oxford Workshop on Giant Molecular Clouds Oxford, UK (03/12/2018), Caltech Astrophysics Colloquium (03/07/2018), Wesleyan Astrophysics Colloquium (02/28/2018), SMA Special Session at the American Astronomical Society meeting (01/08/2018).
- **2017:** Union of Radio Science General Assembly and Scientific Symposium (08/22/2017), Trinity College Physics Seminar (03/31/2017), National Radio Astronomy Observatory Charlottesville Astronomy Colloquium (02/09/2017), Far-IR Science Interest Group Webinar (02/02/2017).
- **2016:** National Radio Astronomy Observatory Socorro Astronomy Colloquium (12/02/2016), Harvard-Heidelberg Workshop on Star Formation Heidelberg, Germany (11/08/2016), SMA Science in the Next Decade Taipei, Taiwan (10/27/2016), University of Texas Austin Astronomy Colloquium (09/14/2016), Kavli Institute for Theoretical Physics Santa Barbara *The Cold Universe* (04/25/2016), DRAO Astronomy Colloquium Penticton, BC (03/01/2016), NRC Herzberg Institute for Astronomy Colloquium Victoria, BC (02/29/2016), University of Connecticut Physics Seminar (02/11/2016), University of California, Berkeley Astronomy Colloquium (02/04/2016), Amherst College Physics and Astronomy Colloquium (01/26/2016),
- **2015:** Bates College Physics and Astronomy Colloquium (12/4/2015), University of Arizona Tucson FLASH and Origins Talks (11/13/2015), UMass Amherst Astronomy Colloquium (11/5/2015), IAU 'Scale-Free Processes' Focus Meeting Honolulu (08/13/2015), University of Florida, *Star & Planet Formation Workshop* (03/12/2015), American Museum of Natural History Colloquium, (02/05/2015).
- **2014:** National Radio Astronomy Observatory Filaments Workshop Charlottesville (10/10/2014), Boston University Astrophysics Seminar (10/14/2014), MIT Haystack Observatory Colloquium (07/24/2014), Yale University Seminar (04/07/2014).
- **2013:** University of Florida *ASTROWIN* (02/15/2013), University of Florida Seminar, (02/12/2013).

Invited Public Talks (14 since 2016):

- "Girls Who Code" club of Avon High presentation (05/23/22), Avon High School Classroom Presentation (12/09/19), Early College Experience Presentation to Visiting High School Teachers (09/30/19), Manchester Public Library (08/21/19), UConn Astronomy Association (04/24/2019), Wachusett Science Seminar at Holden public High School, MA (11/13/2018), Science Seminar at Avery Heights Assisted Living, Hartford, CT (10/31/2018), Sky Scrapers Amateur Astronomy Club, RI (05/11/2018), Keene Public Library in New Hampshire (03/09/2017), Sturbridge Rotary Club Massachusetts (01/30/2017), Arlington Retired Men's Club Massachusetts (10/12/2016), Aldrich Astronomical Society Massachusetts (10/08/2016), Astronomy on Tap in Cairns, Australia, (07/20/2016), Center for Astrophysics Observatory Nights, Posted online: [The Wild West of Star Formation](#) (04/21/2016).

Postdoctoral Fellows Advised:

Summary: Cara Battersby has advised 4 postdoctoral researchers.

- Dr. H Perry Hatchfield - Postdoc leading our NASA SOFIA Program “*IGNITES: Investigating Galactic Nuclear Infrared Thermal Evolution of young Stars*” program (July 2022 - present)
- Dr. Samantha Brunner - Postdoc leading our NASA ADAP program “*3-D MC: Mapping Circumnuclear Molecular Clouds from X-ray to Radio*” (June 2022 - present)
- Dr. Daniel Walker - Postdoc leading our NSF program “*3-D CMZ: Unveiling the Structure of our Galaxy’s Central Molecular Zone*”. (July 2020 - April 2022). Now an astrophysicist at the UK ALMA Regional Center.
- Dr. Molly Gallagher - Postdoc who joined to work the group to lead our NSF program “*3-D CMZ: Unveiling the Structure of our Galaxy’s Central Molecular Zone*” but had to resign early due to medical issues. (Fall 2019).

Students Advised and Co-Advised:

Summary: Cara Battersby has advised or co-advised 35 research students since 2013.

- **Two Current Graduate Students:**

- Dani Lipman - UConn Graduate Student - “*3-D CMZ: Uncovering the Structure of our Galaxy’s Central Molecular Zone*” (Fall 2020 - present)
- Jennifer Wallace - UConn Graduate Student - “*Cataloging High-Mass Star Formation from the Galactic Disk to the Galactic Center*” (Spring 2020 - present)

- **Six former Graduate Students**

- H Perry Hatchfield - UConn Graduate Student - “*Star Formation in the Central Molecular Zone*” (Summer 2017 - Spring 2022), completed PhD in Spring 2022.
- Yiyang Kuang - UConn Graduate Student - “*Simulated Observations of the Core Mass Function*” (Fall 2020), short-term project.
- Steven Walczyk - UConn Graduate Student - “*Tidal Compression of Clouds in the Central Molecular Zone*” (Spring 2019 - Fall 2019), short-term project.
- Mark Graham - Southampton Master’s Student at Harvard - “*Extreme Star Formation in the Center of Our Galaxy*” (2014 - 2015), completed Master’s in 2015.
- Catherine Zucker - Harvard Graduate Student (primary adviser Alyssa Goodman) - “*Milky Way Bones*” (2014 - 2018), completed PhD in 2020.
- Brian Svoboda - Graduate Student at University of Arizona (primary adviser Yancy L. Shirley) - “*The Nature of Starless Clumps*” (2013 - 2018), completed PhD in 2018.

- **Twenty UConn Undergraduate Students:** Taevis Kolz (Spring 2022 - present), Stefania Schuler (Fall 2021 - present), Lexie DeMarco (Summer 2021 - Spring 2022), Danya Albolani (Spring 2021 - present), Eric Hilhorst (Spring 2020 - Spring 2021), Hannah Koziol (Spring 2020 - Spring 2022), Payal Shah (Spring 2020 - Spring 2022), Eddie Herndon (Fall 2019 - Spring 2021), Sean Oh (Fall 2019 - Spring 2020), Bryan Garcia-Medina (Fall 2019 - Spring 2020), Jonah Cerbin (Spring 2019), Joseph Giangregorio (Fall 2017 - Spring 2019), Alice Hall (Spring 2018 - Summer 2019), Aisha Massiah (2018, Spring 2021), Brian Zelickovics (Spring 2018), Anthony (Josh) Machado (Spring 2018 - Summer 2020), Alexa Abul (Fall 2017 - Spring 2018), Christopher Annuzzi (Fall 2017 - Fall 2018), Cooper Biancur (Fall 2017 - Spring 2018), Stephanie Santillo (Fall 2017).

- **Seven other Undergraduate and High School Students:** Elizabeth Gutierrez - Harvard Banner Summer Student (co-adviser: Meredith MacGregor) (2017), Emma Kleiner - Nyack High School Student (2016-2018), Irene Vargas-Salzar - Harvard Summer REU student (2016), Dennis Lee - Harvard undergraduate student (2015 - 2016), Jimmy Castaño - Harvard undergraduate student (2015 - 2016), Liz Gehret - Harvard Summer REU student (2015 - 2016), AJ Cohn - Harvard undergraduate student (2015 - 2017).

TEACHING

Developed and Instructed an Advanced Physics Course for Undergraduate Majors and Graduate Students: PHYS 4720/6720: Galaxies and the Interstellar Medium, University of Connecticut, Storrs, CT.

- Taught Spring 2021 online. *SET median scores of 5.0 for instructor and 5.0 for course*

Helped to Overhaul and Instructed a Large, Interactive Physics Course for Non-Majors: PHYS 1025Q: Introductory Astronomy, University of Connecticut, Storrs, CT.

- Taught Spring 2022. *SET median scores of 5.0 for instructor and 4.5 for course Spring 2022*
- Taught Spring 2020. *SET median scores of 5.0 for instructor and 5.0 for course Spring 2020*
- Taught Spring 2019. *SET median scores of 5.0 for instructor and 5.0 for course Spring 2019*

Developed and Instructed a New Interactive Physics Course for Majors: PHYS 2701: The Foundations of Modern Astrophysics, University of Connecticut, Storrs, CT.

- Taught Fall 2017, Fall 2018, Fall 2019, Fall 2021. *SET median scores of 5.0 for instructor and 5.0 for course 2017, 2018, 2019, 2021.*
- [Six student Astrobites published](#) based on work in this class. The Astrobite activity for this class was highlighted on their website: [Writing Astrobites in Your Courses!](#)

Additional Teaching:

Measuring the Stars for the Astronomy Summer Course at the Stedu Association, a youth-led non-profit that is focused on making STEM education more accessible.

- Taught July 16, 2021.

Big Data and Computation Workshop

- Taught at the UConn Summer BRIDGE+ Program August 19, 2021 • Guest lecture in the PHYS 2200 Computation Physics, November 3, 2021

The Holistic STEMInist: Work Life Balance

- Taught at the UConn Summer BRIDGE+ Program August 24, 2021 • Astronomy Seminar Series Professional Development Workshop, December 8, 2021
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SELECTED
SERVICE

UConn Service:

- **Advising and Mentorship:**
 - Founder of the UConn STARs Program, Spring 2022-present.
 - Co-founder of the UConn Graduate BRIDGE+ Program, Summer 2021.
 - Cientifico Latino Graduate Student Mentoring Initiative ([GSMI](#)) Mentor Fall 2020, Fall 2021
 - Informal Mentor (meet for career advice, navigating challenges, etc.) for tens of UConn graduate and undergraduate students in the Astronomy program (Fall 2017 - present)
 - Research Mentor to 20 UConn undergraduate students and 5 graduate students. Wrote over 100 reference letters for over 40 students and postdocs, including 36 UConn undergraduate and 2 UConn graduate students (Fall 2017-present)
 - UConn Physics Club Faculty Advisor (Fall 2018 - Spring 2022)
 - Undergrad Faculty Mentor for SPS Chapter (Spring 2019, 2020, 2021, 2022)
 - UConn Astronomy Association Faculty Advisor (2018 - present)
 - Organizer for Graduate Student Fellowship Information Presentation (Fall 2017 & 2018)
- **Student Project / Thesis Committees**
 - PhD Thesis Exam Committee Member for Gloria Fonseca Alvarez (06/08/22)
 - Dissertation Proposal Defense Committee Member for J. Andrew Casey-Clyde (05/17/22)
 - General Oral Exam Committee Chair for Jennifer Wallace (04/28/22)
 - Dissertation Proposal Defense Committee Member for Bren Backhaus (04/18/22)
 - PhD Thesis Exam Committee Chair for H Perry Hatchfield (04/08/22)

- University Scholar Program Committee Member for Nathan Wetherell (2020-2022)
- PhD Thesis Exam Committee Member for Mohammad Akhshik (02/04/22)
- Dissertation Proposal Defense Committee Member for Jonathan Mercedes-Feliz (01/24/22)
- Dissertation Proposal Defense Committee Member for Gloria Fonseca Alvarez (07/14/21)
- Master's Thesis Exam Committee Member for Nikko Cleri (03/18/2021)
- PhD Thesis Exam Committee Member for Yasaman Homayouni (02/26/2021)
- Dissertation Proposal Defense Chair for H Perry Hatchfield (04/25/2019)
- Dissertation Proposal Defense Committee Member for Mohammed Akhshik (11/02/2018)
- University Scholar Program Committee Member for Emmerson Dang (2017-2018)
- Dissertation Proposal Defense Committee Member for Yasaman Homayouni (05/19/2017)
- **Committees:**
 - Department of Physics Advisory Committee (Fall 2019 - Spring 2022)
 - Astronomy Seminar Committee Chair (Fall 2019 - present)
 - CLAS Big Data Task Force Committee Member (Spring 2019)
 - Faculty Search Committee Member (Fall 2018 - Spring 2019)
 - Furniture Committee Member (Fall 2018 - Spring 2019)
- **Development of UConn Astrophysics Program:**
 - Facilitator of Professional Development Seminars / Discussions at least once per semester in UConn Astronomy (Fall 2017 - present)
 - Lead Development of Interactive New Advanced Astrophysics Course PHYS 4720/6720 (2021) and New Astrophysics Course for Majors PHYS 2701 (2017)
 - Addition and co-development of 6 new Astrophysics Courses: PHYS 2701, 2702, 4710, 4720, 4740, and 1040QE along with Profs. Whitaker and Trump (2016-2021)
 - Helped to overhaul and update PHYS1025Q (2019)
 - Co-Development of Astrophysics Minor, along with Profs. Whitaker and Trump (2017)

Service to Scientific Community:

- **NSF Program Reviews**
 - Green Bank Observatory (GBO) NSF Program Review (2021)
 - National Radio Astronomy Observatory (NRAO) NSF Program Review (2018)
- **Proposal Review Panels:**
 - NASA Astrophysics Data Analysis Program, Chair (2020)
 - Large Millimeter Telescope Proposal Review Committee (2020)
 - Atacama Large Millimeter Array Time Allocation Committee (2019)
 - NASA Hubble Postdoctoral Fellowship Program (2018)
 - Smithsonian Astrophysics Observatory Submillimeter Array (2015-2017)
 - NASA Astrophysics Data Analysis Program (2015)
- **External PhD Thesis Defense Committee Member:**
 - Boston University, Taylor Hogge, (Dec. 2018 - Oct. 2021)
 - University of Victoria, Jared Keown (Sept. 2019)
- **Referee:** Astrophysical Journal (*ApJ*), Astronomy & Astrophysics (*A&A*), Nature Astronomy
- **Co-I and Science Working Group Lead for the PRIMA Far-IR Probe Mission Concept** (February 2022 - present)
- **NASA-appointed member of the Science & Technology Definition Team (STDT): Origins Space Telescope (OST)** (March 2016 - January 2020)
- **NASA OST Group Leader** for:
 - The Milky Way, ISM, and Local Galaxy Science Group (2016 - 2020)
 - The OST Advocacy Group (2017 - 2020)

- **Science Organizing Committees:**

- European Astronomical Society Symposium *The golden decade of infrared astrophysics*, Valencia, Spain, Summer 2022
- New England Star Formation Workshop, UConn (01/17/20)
- Galactic Center Workshop, *New Horizons in the Galactic Center Astronomy and Beyond*, Keio University, Japan 2019
- Olympian Symposium *Gas and Stars from milli- to mega-parsecs*, Greece in 2018
- Chair of the Science and Local Organizing Committees for the [Harvard-Heidelberg Workshop on Star Formation](#) in 2015

Founder of UConn STARS (Science Technology & Astronomy Recruits, Spring 2022 - present):

- New program to recruit and retain students from historically excluded groups in the physics major. Launched in Spring 2022, supported by a CLAS DEI grant. Program will be supported by Battersby's NSF CAREER grant for five years starting in Fall 2022
- Professional development, social activities, and community engagement as well as dedicated one-on-one mentorship for each participant.
- Spring 2022 highlights: 7 participants with 3 returning as co-leads. We hosted 15 SAND elementary school students at UConn, including bus transport, a power plant tour, and a visit to the Dairy Bar (04/29/22). We developed 4 lesson plans and led four class sessions over two days at the SAND Elementary School in Hartford (5/9/22 and 5/13/22).

Co-Founder of the UConn Graduate BRIDGE+ program (2021 - present):

- Co-founded in 2021, led by the Vergano Institute for Inclusion in the School of Engineering and funded through the Presidents Commitment to Community Initiative.
- A summer bridge program for incoming UConn STEM graduate students from traditionally underrepresented backgrounds.
- Taught two course sessions in Summer 2021, one entitled Big Data and Computation and the other The Holistic STEMInist: Work-Life Balance. (08/19/21 and 08/24/21)

Co-Founder and Leader of BiteScis (2014 - 2020):

- A program that brings together science graduate students with K-12 teachers to develop lesson plans to bring modern science research into the K-12 classroom.
- BiteScis has produced more than 25 new classroom-tested, scientist-approved lesson plans, freely available on our website bitescिस.org.
- Granted \$215k from the Templeton Foundation

Co-Founder and Leader of CU-STARs (2010-2013): Founded a new program at CU-Boulder to retain undergraduate students from traditionally underrepresented backgrounds in STEM during their first year. Estimated to have impacted 50 undergraduate and hundreds of high school students.

Additional Highlighted Outreach Activities:

- Led Astronomy Activity at Hartford Schools Physics Open House. (April 2018)
- Co-organized solar eclipse viewing party. (August 2017)
- Science Advisor for the Play "The Women who Mapped the Stars" by Joyce Van Dyke, premiering at the Central Square Theater. (07/01/2016 - 09/01/2017)
- [ComSciCon](#) workshop organizer (2015-2017)
- [WorldWide Telescope Ambassador](#) (2014-2016)
- Leader of the Colorado Women in Astronomy Group (2010-2012)