

A. Meredith Hughes

Curriculum Vitae – May 23, 2022

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EDUCATION

Harvard University, Cambridge, Massachusetts
Ph.D., Astronomy (Advisor: Dr. David Wilner) May 2010
Thesis title: *Circumstellar Disk Structure through Resolved Submillimeter Observations*

Yale University, New Haven, Connecticut
B.S., Astronomy and Physics (with distinction), summa cum laude 2005

PROFESSIONAL EXPERIENCE

Associate Professor, Wesleyan University Department of Astronomy 2019-present
Assistant Professor, Wesleyan University Department of Astronomy 2013-2019
Miller Fellow, UC Berkeley Department of Astronomy 2010-2012
Graduate Student Researcher, Harvard University Department of Astronomy 2005-2010

RESEARCH INTERESTS

Planet formation. Circumstellar disk structure and dynamics: gas and dust.
Disk evolution: viscous transport and clearing processes.
Radio astronomy. Aperture synthesis techniques.

HONORS AND AWARDS

Cottrell Scholar, Research Corporation for Science Advancement (for outstanding teacher-scholars) 2018
Bok Prize, Harvard University Dept of Astronomy (research excellence by PhD graduate under age 35) 2015
Miller Fellowship, Miller Institute for Basic Research in Science, UC Berkeley 2010-2012
Fireman Fellowship, Harvard University Dept of Astronomy (outstanding PhD thesis) 2010
National Science Foundation Graduate Research Fellowship 2007-2010
Certificate of Distinction in Teaching, Derek Bok Center at Harvard University 2009
George Beckwith Prize in Astronomy, Yale University 2005
Phi Beta Kappa, Yale University (top 1% of Junior class) 2003

TEACHING & ADVISING

Postdoctoral Collaborators Supervised
Kevin Flaherty, 2013-2018 → Williams College Lecturer and Observatory Supervisor

MA Theses Supervised 2013-present

7. Megan Delamer '21 → PhD student at Penn State University
A High Resolution Study of Spectral and Spatial Variations of Dust Properties in the 49 Ceti Debris Disk
6. Jonas Powell '19 → Systems & Technology Research, Woburn, MA
Exploring the Role of Environment in the Composition of ONC Proplyds. Awarded three NASA CT Space Grant awards (Undergrad Travel, Undergrad Scholarship, and Undergrad Research Fellowship).
5. Jessica Klusmeyer '19 → WIYN queue observer
A Deep Search for Five Molecules in the Debris Disk around 49 Ceti. Earned Graduate Chambliss award for presenting research at AAS meeting. First author on paper from thesis research (Klusmeyer et al. 2021)
4. Evan Carter '18 → PhD student at UT San Antonio
The Debris Disk around AU Mic: Measuring Scale Height as a Proxy for Probing the Strengths of Bodies in the Collisional Cascade. Awarded NASA CT Space Grant Student Travel Scholarship; presented thesis research at AAS meeting; coauthor on one published paper (Daley et al. 2019) and on submitted paper

- (Vizgan et al).
3. Zachary Lambros '18 → Raytheon
Questing for Minute Traces of Molecular Gas in Circumstellar Debris Disks: AU Microscopii and 49 Ceti Edition. Awarded NASA CT Space Grant Student Travel Scholarship; presented thesis research at AAS meeting; coauthor on one published paper (Daley et al. 2019).
 2. Sam Factor '15 → PhD student at UT Austin
ALMA Observations of Molecular Gas Emission from a Protoplanetary Disk in the Orion Nebula Cluster
Awarded NASA CT Space Grant Student Travel Scholarship; presented thesis research at AAS meeting; first author on paper based on his thesis research (Factor et al. 2017)
 1. Amy Steele '14 → PhD student at U. Maryland
Resolved Millimeter-wavelength Observations of Debris Disks around Sun-like Stars
Presented thesis research at AAS meeting; recipient of Littell Prize; first author on paper based on thesis research (Steele et al. 2016)

BA Theses Supervised

2013-present

3. David Vizgan '21 → Fulbright Scholar in Denmark, PhD student at U. Illinois
A Dual-Wavelength Study of the Vertical Structure of the AU Microscopii Debris Disk
Awarded Chambliss medal for REU project, 2021 Fulbright scholar. First author on one submitted paper
2. Cail Daley '18 → PhD student at U Illinois
Using Vertical Structure to Infer the Dynamical Mass Hidden in the AU Mic Debris Disk
Awarded NASA CT Space Grant awards for undergraduate research and student travel; presented thesis research at AAS meeting; traveled to NRAO Charlottesville for ALMA data reduction support; first author on one published paper (Daley et al. 2019).
1. Jesse Lieman-Sifry '15 → Arterys, Inc., San Francisco, CA
The Mysterious Case of 49 Ceti: A Gas-Rich Debris Disk and its Implications for Planet Formation
Awarded NASA CT Space Grant Directed Campus Scholarship; co-recipient of Littell Prize; presented thesis research at AAS meeting; author on two papers (Lieman-Sifry et al. 2016; Hughes et al. 2017).

KNAC REU Projects Supervised

2013-present

- Saad Waheed 2021 (Williams College)
- Diego Garcia 2018 (Middlebury College) → industry with McMaster Carr
- Sanaea Rose 2015 (Wellesley College) → PhD student at U Michigan
- Frankie Encalada 2013 (Broward College, transferred to U. Florida) → PhD student at U. Illinois
Represented KNAC at CUR REU student symposium; awarded 2014 Goldwater scholarship
- Will Harney 2013 (Union College) → industry in Boston, MA
8th author on one published paper (Flaherty et al. 2016)

Other Student Research Supervised

- B.A. research: Carlos Ordonez '25, 2022-present
- B.A. research: Owen Gonzales '24, 2022-present
- B.A. research: Jamar Kittling '24, 2021-present
6th author on one submitted paper (Fehr et al.), acknowledged in PPVII article
Presented talk with Erin Readling at 2021 KNAC symposium
- B.A. research: Josh Grajales '24, 2021-present
Awarded NASA CT Space Grant Undergraduate Scholarship
Presented poster with Eric Rumsfeld at 2021 KNAC symposium
- B.A. research: Eric Rumsfeld '23, 2020-present
Awarded NASA CT Space Grant Undergraduate Research Fellowship
Presented poster with Josh Grajales at 2021 KNAC symposium
- B.A. research: Anna Fehr '23, 2020-present
Awarded NASA CT Space Grant Undergraduate Research Fellowship, student travel fellowship
Presented virtual poster at Jan 2021 AAS meeting
Awarded 2022 Goldwater scholarship
Third author on one published paper (Nederlander et al. 2021), first author on one submitted paper
- B.A. research: Hannah Lewis '23, 2020-present
Awarded NASA CT Space Grant Undergraduate Research Fellowship, student travel fellowship

Presented virtual poster at Jan 2021 AAS meeting
 B.A. research: Rachel Marino '20, 2018-2020
 Awarded NASA CT Space Grant Community College Transfer Scholarship
 Presented poster at Jan 2020 AAS meeting
 4th author on one submitted paper (Fehr et al.)
 B.A. research: Ava Nederlander '22, 2019-2021
 Awarded NASA CT Space Grant Undergraduate Scholarship
 Presented virtual poster at Jan 2021 AAS meeting
 First author on one published paper (Nederlander et al. 2021)
 B.A. research: Matan Ackelsberg '24, 2021
 5th author on one submitted paper (Fehr et al.)
 B.A. research: Erin Readling '24, 2021
 Acknowledged in PPVII article
 B.A. research: Kimberly Paragas '22, 2020
 B.A. research: Allison Quintana '19, spring 2018
 B.A. research: Julia Zachary '16, spring-summer 2015
 9th author on one published paper (Flaherty et al. 2016)
 M.A. research: Jesse Shanahan '17, summer 2015
 M.A. research: Rebecca Nakaba, 2013-2014
 UC Berkeley (in collaboration with Gaspard Duchene): Angelo Ricarte and Noel Moldvai (2012-2013)

Lead Instructor, Wesleyan University 2013-present

ASTR105: Exploring the Cosmos, Fall 2016, Spring 2018, Fall 2021
 ASTR155: Introductory Astronomy, Fall 2013, 2015, 2017, 2019, 2020, 2021
 ASTR211: Observational Astronomy, Spring 2014, 2015, 2019
 ASTR240: Radio Astronomy, Spr 2013, Fall 2014, Fall 2018, Spr 2021 (New course created by A. M. Hughes)
 ASTR430: Astronomical Pedagogy, Fall 2013, 2014, 2015, 2016, 2017, 2019, 2020, 2021
 ASTR431: Research Discussion in Astronomy, Spring 2014, 2015
 ASTR555: Planetary Science Seminar, Fall 2014, Spring 2018, 2022
 CIS321: Special Topics in Integrative Sciences, Fall 2018, 2019, 2020 (co-taught with Ishita Mukerji)

Teaching Fellow, Harvard University 2006-2008

Science A-36: Observing the Sun and Stars (lead instructors: Josh Grindlay & Lisa Kaltenegger) 2008
 Astronomy 218: Radio Astronomy (lead instructor: Jim Moran) 2007
 Astronomy 2: Celestial Navigation (lead instructor: Phil Sadler) 2006

Teaching Assistant, Summer Science Program, Ojai, CA 2005

Guided gifted HS students in astronomical data collection, reduction and analysis; small-group tutoring in physics, math, astronomy, and computer science; conducted astrograph maintenance; oversaw aspects of residential life

Physics and Astronomy Tutor, Yale College Dean's Office 2003-2005

Tutored Yale undergraduates one-on-one in introductory astronomy and physics (1-3 per semester)

INVITED SEMINARS AND COLLOQUIA

Astrophysical colloquium, University of Jena (remote)	2022
Astronomy colloquium, University of Maryland (remote)	2021
Physical Science colloquium, St. Anselm College (remote)	2021
Submillimeter Array colloquium, Harvard-Smithsonian Center for Astrophysics (remote)	2021
Astronomy colloquium, Princeton University (remote)	2020
Astronomy colloquium, ETH Zurich (remote)	2020
Astronomy colloquium, CU Boulder, Boulder, CO	2020
Astronomy colloquium, Yale University, New Haven, CT	2020
Astrophysics colloquium, UConn, Storrs, CT	2019
Astrophysics colloquium, American Museum of Natural History, New York, NY	2018

Astrophysics colloquium, Boston University, Boston, MA	2018
Squire Lecture, Grinnell College, Grinnell, IA	2018
Science Workshop Series, Bennington College, Bennington, VT	2017
Astronomy Colloquium, Rutgers University, New Brunswick, NJ	2017
Astronomy Colloquium, University of Michigan, Ann Arbor, MI	2017
Astronomy Colloquium, Amherst College, Amherst, MA	2017
Astronomy Colloquium, American Museum of Natural History, New York, NY	2017
Geology & Planetary Science Club Brown Bag Lunch, Central Connecticut State University, CT	2015
Astronomy Colloquium, University of Florida, Gainesville, FL	2015
Bok Prize Lecture, Harvard University, Cambridge, MA	2015
Joint NRAO/UVA Colloquium, National Radio Astronomy Observatory, Charlottesville, VA	2015
Astronomy Colloquium, University of Massachusetts, Lowell, MA	2015
Astrophysics Colloquium, NRC-Herzberg, Victoria, BC, Canada	2015
Colloquium, University of British Columbia, Vancouver, BC, Canada	2015
ITC Lunch Talk, Harvard-Smithsonian Center for Astrophysics, Cambridge, MA	2015
Colloquium, Space Telescope Science Institute, Baltimore, MD	2014
Astronomy Colloquium, Caltech, Pasadena, CA	2014
Physics Colloquium, University of Massachusetts, Lowell, MA	2014
NASA Goddard Astrophysics Science Division Colloquium, Greenbelt, MD	2014
Sigma Pi Sigma Colloquium, University of Connecticut, Storrs, CT	2014
Astronomy Colloquium, Boston University, Boston, MA	2014
EAPS Colloquium, MIT, Cambridge, MA	2014
Colloquium, University of West Virginia, Morgantown, WV	2013
Joint Colloquium, Steward Observatory and NOAO, Tucson, AZ	2013
Colloquium, Princeton University, Princeton, NJ	2013
Seminar, Yale Center for Astronomy and Astrophysics, New Haven, CT	2013
Colloquium, Carnegie Institute Department of Terrestrial Magnetism, Washington, DC	2013
Colloquium, Columbia University, New York, NY	2012
SOFIA Seminar, NASA Ames, Moffett Field, CA	2012
Colloquium, UCLA, Los Angeles, CA	2012
CARMA lunch seminar, Big Pine, CA	2011
Colloquium, UC Santa Cruz, Santa Cruz, CA	2011
LMA Seminar, University of Maryland, Baltimore, MD	2011
Seminar, Wesleyan University, Middletown, CT	2011
Colloquium, University of Washington, Seattle, WA	2011
Colloquium, UC Berkeley, Berkeley, CA	2010
R&G Lunch Talk, Harvard-Smithsonian Center for Astrophysics, Cambridge, MA	2010
APS Colloquium, CU Boulder, Boulder, CO	2010
HIA Seminar, HIA, Victoria, Canada	2010
Astrophysics Journal Club Seminar, Brown University, Providence, RI	2009
Astrobiology Seminar, GSFC, Greenbelt, MD	2009
Astronomy Group Meeting Seminar, Carnegie DTM, Washington, DC	2009
TUNA Lunch Talk, NRAO, Charlottesville, VA	2009
Radio Astronomy Lab Seminar, UC Berkeley, Berkeley, CA	2009
Star Formation Lunch Talk, University of Hawaii IfA, Honolulu, HI	2009

EDUCATION AND OUTREACH

Kids' Night and Space Night Programs at VVO, Middletown, CT 2015-present
 As part of NSF Broader Impacts, redesigned Astronomical Pedagogy curriculum to prepare students to give public talks and remodeled outreach efforts at Van Vleck Observatory. Instituted a series of Space Nights (rain-or-shine public level presentation plus observing) and Kids' Nights (bimonthly kids' activities) for the Spring 2015 semester. In its first year, draws regular crowds of 1-2 dozen per event. Improved communication by starting a Facebook page and email list, gathering over 200 addresses, and sending out surveys to visitors to ask for feedback.

AAPT Workshop for New Physics and Astronomy Faculty, College Park, MD 2014

Interacted with science education researchers and expert teachers to explore new teaching techniques

CAE Tier I Teaching Workshop, Austin, TX 2012

Interacted with science education researchers and expert teachers to explore new teaching techniques

Panelist, Path of Professorship Workshop, MIT 2012

Advised female grad students and postdocs about the process of applying for faculty jobs

Mentor, Society of Women in the Physical Sciences, UC Berkeley 2011-2012

Mentored female undergraduates and grad students in the physical sciences (2-3 per year)

Astronomy VIP (Volunteers In Parks), Bryce Canyon National Park August 2010

Operated small telescopes for solar and night sky observing, discussed basic astronomy concepts with members of the public, oriented visitors to park resources, gave public presentations (hundreds of interactions per day)

Family Night Coordinator, Harvard-Smithsonian CfA 2007-2008

Developed a series of monthly astronomy programs for children including interactive lectures, demonstrations, hands-on activities, and observing with small telescopes

Mentor, WISHR Mentoring Program, Harvard University 2005-2010

Mentored female Harvard undergraduates considering majors in the physical sciences (1-2 per year)

Volunteer Exhibit Hall Interpreter, Museum of Science, Boston, MA 2005-2010

Taught basic physical and biological concepts through interactive demonstrations with members of the public; subjects include scanning electron microscopes, ultrasound, infrared cameras, small telescopes, and live animals

Public Observatory Night Assistant, Harvard-Smithsonian CfA 2005-2010

Operated small telescopes and answered questions about basic astronomy for members of the public

Public Talks and Programs:

All-school assembly, Westminster School, Simsbury, CT 2022

Are Stars For All Who Look Up? Panel with Consonare Choral Community, Hartford, CT (virtual) 2022

Wasch Center at Wesleyan University, Middletown, CT 2019

Frontiers Lecture, American Museum of Natural History, New York, NY 2018

Space Night at Wesleyan, Middletown, CT 2015-19

Hot Chocolate and Stargazing with WesWIS, Middletown, CT 2013-19

Science Saturday at Wesleyan, Middletown, CT 2016

Westport Astronomical Society Speaker, Westport, CT 2016

Summer Science Program Alumni Dinner, Cambridge, MA 2015

Second Hour, First Church of Christ, Middletown, CT 2014-15

Wesleyan Thinks Big, Middletown, CT 2013

Chabot Space Science Center (Transit of Venus), Oakland, CA 2012

Peninsula Astronomical Society, Palo Alto, CA 2012

Trinity School 4th grade class visit, Menlo Park, CA 2011

Mt. Diablo Astronomical Society, Concord, CA 2011

Science @ Cal, Berkeley, CA 2011

Cal Day, Berkeley, CA 2011

Cal Science & Engineering Festival, Berkeley, CA 2011

East Bay Astronomy Society, Oakland, CA 2010

Bryce Canyon National Park, Bryce, UT 2010

Red Canyon, Dixie National Forest, UT 2010

Kodachrome Basin State Park, Cannonville, UT 2010

Kingsley Montessori School, Boston, MA 2010

Somerville High School Astronomy Club, Somerville, MA 2010

Newton South High School, Newton, MA 2010

Monthly Observatory Night, Harvard-Smithsonian Center for Astrophysics, Cambridge, MA 2009

Museum of Science podcast, Boston, MA

2006

ACADEMIC SERVICE**National/International Level:**

External Committee Member , Anneliese Rilinger PhD Thesis Defense, Boston University Astronomy	2022
SOC member , “Debris Disks at Home and Abroad”	2021-present
North American representative to ALMA Science Advisory Committee	2021-present
ALMA North American Science Advisory Committee	2021-present
NRAO Users Committee	2021-present
AAS Code of Ethics Committee inaugural member	2017-present
Committee Chair	2019-2020
Referee , ApJ, ApJL, A&A, PASJ, Nature Astronomy (1-3 papers per year)	2010-present
External Committee Member , Amy Steele PhD Thesis Defense, University of Maryland Astronomy	2020
SOC member , “Potsdam Thinkshop on protoplanetary disk chemodynamics” (canceled by COVID)	2019-2020
SOC chair , “New Horizons in Planetary Systems”	2018-2019
Panel Reviews (NSF, NASA)	2013, 2014, 2017
SOC member , “Extreme Solar Systems III”	2014-2016
External Committee Member , Katherine Rosenfeld PhD Thesis Defense, Harvard Astronomy	2015
Organizing Committee , “Inclusive Astronomy”	2014-2015
Committee On the Status of Women in Astronomy member, liaison to WGLE	2012-2015
Member of Admissions and Outreach Committees , Summer Science Program	2008-2014
SOC member , “Bringing Fundamental Astrophysical Processes into Focus”	2014
TAC member , CARMA (2012a, 2012b), HST (Cycle 20)	2012
SOC chair, LOC member , 2011 CARMA Science Symposium	2010-2011

Campus level:

Faculty mentoring pilot program (mentoring three junior faculty members)	2021-present
Academic advisor to WesMaSS students	2017-present
Faculty Advisor , Wesleyan Women in Science	2014-present
2019 recipients of SALD award for Student Organization of the Year	
Honors Committee	2020-2021
Review and Appeals Board	2020
Ad hoc committee on the evaluation of teaching	2019-2020
Sorting Hat , Keck Northeast Astronomy Consortium REU	2019-2020
Organizer , Keck Northeast Astronomy Consortium Undergraduate Research Symposium	2016
Allbritton Center Faculty Advisory Board Member	2014-2016
Co-Organizer (with C. Othon), Conference for Undergraduate Women in Physics at Wesleyan	2014-2016

Department level:

Hiring committee	2020-2021
Sturm Lecture Organizer	2018
Astronomy Colloquium Organizer	Fall semesters: 2013-2017, 2020
Astronomy Graduate Admissions Committee	2013-present
Astronomy Graduate Qualifying Exam Committee	2013-present
Selected Senior and MA thesis committees	2013-present

EXTERNAL FUNDING

Total external support as PI: \$1.04M (not including student projects)

NASA CT Space Grant, Undergraduate Research Fellowship

Advisor to PIs Anna Fehr, Hannah Lewis, and Eric Rumsfeld, \$5k each (\$15k total), 2021

NASA CT Space Grant, Undergraduate Scholarship

Advisor to PIs Ava Nederlander and Josh Grajales, \$5k each (\$10k total), 2021

HD 106906 Debris Disk Morphology and the Origin of an External Perturber

PI of ALMA project 2018.1.01222.S, NRAO Student Observing Support, \$35k, 2020-2021

Using Debris Disks to Weigh Planetary Systems

PI of Cottrell Scholar Award, Research Corporation for Science Advancement, \$100k, 2018-2021

Community College Transfer Scholarship

Advisor to PI Rachel Marino, NASA CT Space Grant, \$5k, 2018-19

Measuring the Chemical Composition of Molecular Gas in the Debris Disk around 49 Ceti

PI of ALMA project 2017.1.00941.S, NRAO Student Observing Support, \$35k, 2018-9

Dust and Gas in Debris Disks Reveal the Origins of Planetary Systems

PI of NSF AST grant, \$529k, 2014-2018

Characterizing Disks Around a Young Stellar Binary in a High Mass Environment

Advisor to PI Jonas Powell, NASA CT Space Grant Undergraduate Research Fellowship, \$5k, 2017-18

AAS January Meeting, Washington DC

Advisor to PI Jonas Powell, NASA CT Space Grant Undergraduate Travel Fellowship, \$1k, 2017-18

Characterizing Disks Around a Young Stellar Binary in a High Mass Environment

Advisor to PI Jonas Powell, NASA CT Space Grant Directed Campus Scholarship, \$5k, 2017-18

Searching for Non-Axisymmetry in the Unusual Gas Disk around a Main Sequence Star

Advisor to PI Cail Daley, NASA CT Space Grant Undergraduate Travel Fellowship, \$1k, 2017-18

Presenting Observations of Gas in Debris Disks at the January 2018 AAS Meeting

Advisor to PI Zachary Lambros, NASA CT Space Grant Undergraduate Travel Fellowship, \$1k, 2017-18

Who Stirs the Pot? Resolving the Vertical Thickness of Debris Disks

PI of ALMA project 2016.1.00878.S, NRAO Student Observing Support, \$35k, 2017-8

Measuring Turbulence in Protoplanetary Disks

PI of NASA Origins of Solar Systems Grant, \$266k, 2013-2017

Bringing NASA Scientist Aki Roberge to Wesleyan

PI of NASA CT Space Grant Faculty Travel Grant, \$1k, 2015-6

Hosting the Conference for Undergraduate Women in Physics (CUWiP) at Wesleyan

PI of NASA CT Space Grant Faculty STEM Education Programming grant, \$4.7k, 2015-6

Searching for Non-Axisymmetry in the Unusual Gas Disk around a Main Sequence Star

Advisor to PI Cail Daley, NASA CT Space Grant Undergraduate Research Fellowship, \$5k, 2015-6

Understanding the Transitional Stage between Protoplanetary and Debris Disks

Advisor to PI Jesse Lieman-Sifry, NASA CT Space Grant Directed Campus Scholarship, \$5k, 2014-5

Travel to 225th Meeting of the American Astronomical Society, Seattle, Washington

Advisor to PI Sam Factor, NASA CT Space Grant Student Travel Fellowship, \$1k, 2014-5

Building a CMB Telescope at Wesleyan

PI of NASA CT Space Grant Faculty Curriculum Development Grant, \$3.7k, 2014

Who Stirs the Pot? Resolving the Vertical Thickness of Debris Disks

PI of ALMA project 2012.1.00198-S, NRAO Student Observing Support, \$29K 2013-2014

REFEREED PUBLICATIONS

(**bold** = me, underlined = students/postdocs directly under my supervision, * = submitted since arrival at Wesleyan)

Total citations: 7,472

h-index: 4e

- *93. *Polarization from Aligned Dust Grains in the beta Pic Debris Disk*
C. L. H. Hull, H. Yang, P. C. Cortés, W. R. F. Dent, Q. Kral, Z.-Y. Li, V. J. M. LeGouellec,
A. M. Hughes, J. Milli, R. Teague, M. C. Wyatt, ApJ, 930, 49, 2022 (arXiv:2203.11979)
- *92. *Demographics of young stars and their protoplanetary disks: lessons learned on disk evolution and its connection to planet formation*
C. F. Manara, M. Ansdell, G. P. Rosotti, **A. M. Hughes**, P. Armitage, G. Lodato, J. P. Williams
Review chapter for Protostars and Planets VII, Ed. Inutsuka, Aikawa, Muto, Tomida, Tamura
(arXiv:2203.09930)
- *91. *Lack of other molecules in CO-rich debris discs: is it primordial or secondary gas?*
G. V. Smirnov-Pinchukov, A. Moor, D. A. Semenov, P. Abraham, T. Henning, A. Kospal, **A. M. Hughes**,
E. Folco, MNRAS, 510, 1148, 2022 (arXiv:2111.07655)
- *90. *A Deep Search for Five Molecules in the 49 Ceti Debris Disk*
J. A. Klusmeyer, **A. M. Hughes**, L. Matra, K. Flaherty, A. Kospal, A. Moor, A. Roberge, K. Oberg,
A. Boley, J. White, D. Wilner, P. Abraham, ApJ, 921, 56, 2021 (arXiv:2107.07435)
- *89. *The First Radio Spectrum of a Rapidly Rotating A-type Star*
J. A. White, F. Tapia-Vazquez, A. G. Hughes, A. Moor, B. Matthews, D. Wilner, J. Aufdenberg, O. Feher,
A. M. Hughes, V. de la Luz, A. McNaughton, L. A. Zapata, ApJL, 912, 5, 2021 (arXiv:2104.09332)
- *88. *Resolving Structure in the Debris Disk around HD 206893 with ALMA*
A. Nederlander, **A. M. Hughes**, A. J. Fehr, K. M. Flaherty, K. Y. L. Su, A. Moor, E. Chiang,
S. M. Andrews, D. J. Wilner, S. Marino, ApJ, 917, 5, 2021 (arXiv:2101.08849)
- *87. *Insights into the planetary dynamics of HD 206893 with ALMA*
S. Marino, A. Zurlo, V. Faramaz, J. Milli, Th. Henning, G. M. Kennedy, L. Matra, S. Perez, P. Delorme,
L. A. Cieza, **A. M. Hughes**, MNRAS, 498, 1319, 2020 (arXiv:2010.12582)
- *86. *Dust Populations in the Iconic Vega Planetary System Resolved by ALMA*
L. Matra, W. R. F. Dent, D. J. Wilner, S. Marino, M. C. Wyatt, J. P. Marshall, K. Y. L. Su, M. Chavez,
A. Hales, **A. M. Hughes**, J. S. Greaves, S. A. Corder, ApJ, 898, 146, 2020 (arXiv:2006.16257)
- *85. *The big sibling of AU Mic: A cold dust-rich debris disk around CP-72 2713 in the beta Pic moving group*
A. Moor, N. Pawellek, P. Abraham, A. Kospal, K. Vida, A. Pal, A. Dutrey, E. Di Folco, **A. M. Hughes**,
Q. Kral, I. Pascucci, AJ, 159, 288, 2020 (arXiv: 2005.00861)
- *84. *Measuring turbulent motion in planet-forming disks with ALMA: A detection around DM Tau and non-detections around MWC 480 and V4046 Sgr*,
K. Flaherty, **A. M. Hughes**, J. B. Simon, C. Qi, X. Bai, A. Bulatek, S. M. Andrews, D. J. Wilner,
A. Kospal, ApJ, 895, 109, 2020 (arXiv: 2004.12176)
- *83. *The Surprisingly Low Carbon Mass in the Debris Disk around HD 32297*
G. Cataldi, Y. Wu, A. Brandeker, N. Ohashi, A. Moor, G. Olofsson, P. Abraham, R. Asensio-Torres,
M. Cavallius, W. R. F. Dent, C. Grady, T. Henning, A. Higuchi, **A. M. Hughes**, M. Janson, I. Kamp,
A. Kospal, S. Redfield, A. Roberge, A. Weinberger, B. Welsh, ApJ, 892, 99, 2020 (arXiv: 1904.07215)
- *82. *The MESAS Project: ALMA observations of the F-type stars gamma Lep, gamma Vir A, and gamma Vir B*

- J. A. White, F. Tapia-Vazquez, A. G. Hughes, A. Moor, B. Matthews, D. Wilner, J. Aufdenberg, **A. M. Hughes**, V. De la luz, A. Boley, *ApJ*, 894, 76, 2020 (arXiv:2003.12284)
- *81. *Properties of M Dwarf Flares at Millimeter Wavelengths*
M. A. MacGregor, R. A. Osten, **A. M. Hughes**
ApJ, 891, 80, 2020 (arXiv:2001.10546)
- *80. *New Millimeter CO Observations of the Gas-rich Debris Disks 49 Cet and HD 32297*
A. Moor, Q. Kral, P. Abraham, A. Kospal, A. Dutrey, E. Di Folco, **A. M. Hughes**, A. Juhasz, I. Pascucci, N. Pawellek, *ApJ* 884, 108, 2019 (arXiv:1908.09685)
- *79. *From Scattered-light to Millimeter Emission: A Comprehensive View of the Gyr-old System of HD 202628 and its Eccentric Debris Ring*
V. Faramaz, J. Krist, K. R. Stapelfeldt, G. Bryden, E. E. Mamajek, L. Matra, M. Booth, K. Flaherty, A. S. Hales, **A. M. Hughes**, A. Bayo, S. Casassus, J. Cuadra, J. Olofsson, K. Y. L. Su, D. J. Wilner, *ApJ* 158. 162, 2019 (arXiv: 1909.04162)
- *78. *Modeling the Spatial Distribution and Origin of CO Gas in Debris Disks*
A. S. Hales, U. Gorti, J. M. Carpenter, **A. M. Hughes**, K. Flaherty, *ApJ*, 878, 113, 2019 (arXiv:1905.03844)
- *77. *Multiple Rings of Millimeter Dust Emission in the HD 15115 Debris Disk*
M. A. MacGregor, A. J. Weinberger, E. R. Nesvold, **A. M. Hughes**, D. J. Wilner, T. Currie, J. H. Debes, J. K. Donaldson, S. Redfield, A. Roberge, G. Schneider, *ApJL*, 877, 32, 2019 (arXiv:1905.03844)
- *76. *The Mass of Stirring Bodies in the AU Mic Debris Disk Inferred from Resolved Vertical Structure*
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- *75. *The MESAS Project: Long-wavelength Follow-up Observations of Sirius A*
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Protostars and Planets VI
1. *The eSMA: Description and First Results*
S. Bottinelli, K. H. Young, R. Chamberlin, R. P. J. Tilanus, M. A. Gurwell, D. J. Wilner, H. Shinnaga, H. Yoshida, P. Friberg, H. J. van Langevelde, E. F. van Dishoek, M. R. Hogerheijde, **A. M. Hughes**, R. D. Christensen, R. E. Hills, J. S. Richer, E. Curtis,
Proceedings of the SPIE, Volume 7012, pp. 70120D-70120D-12, 2008
(arXiv:0808.2554)

CONFERENCE CONTRIBUTIONS

(* = took place since arrival at Wesleyan)

- *55. Astronomy Education at Wesleyan: Activities and Challenges (invited panelist)
NEROC Annual Radio Science Symposium 2022 (fully remote)
- *54. *Characterizing the Collisional Cascade in the AU Mic Debris Disk* (contributed talk)
Annual Meeting of the EAS – Planetesimal Belt Symposium, 2021 (fully remote)
- *53. *Debris Disks in the ALMA Era* (invited review talk)
5 Years After HL Tau, 2020 (fully remote)
- *52. *Using Debris Disks to Trace the Dynamics of Planetary Systems* (invited keynote talk)
Boston Area Exoplanets Science Meeting, 2020 (fully remote)
- *51. *Using Debris Disks to Trace the Dynamics of Planetary Systems* (contributed talk)
New England Star Formation Meeting, UConn, 2020, Storrs, CT
- *50. *The ALMA View of GPI Sco-Cen Targets* (solicited talk)
GPI Workshop, STScI, 2019, Baltimore, MD (remote participation)
- *49. *Gas Disk Composition and Evolution* (discussion leader)
Debris Disk Workshop, 2019, Budapest, Hungary (remote participation)
- *48. *Using Debris Disks as a Dynamical Probe of Planetary Systems* (poster)
Gordon Research Conference: Origins of Planetary Systems, 2019, S. Hadley, MA
- *47. *Using Debris Disks to Weigh Planetary Systems* (contributed talk)
New Horizons in Planetary Systems, 2019, Victoria, BC
- *46. *Dust and Gas in Debris Disks around Nearby Stars* (invited talk)
COSPAR 2018, 42nd Assembly, Pasadena, CA
- *45. *Using Debris Disks to Weigh Planetary Systems* (poster and talk)
Cottrell Scholar Conference: Personalizing Education, 2018, Tucson, AZ
- *44. *Turbulence in Protoplanetary Disks: Observations and Theory* (invited talk)
Star and Planet Formation 2, 2018, Biosphere 2 Center, Oracle, AZ
- *43. *Debris Disks as Signposts of Planetary Systems* (invited talk in a contributed session)
American Association for the Advancement of Science Annual Meeting 2018, Austin, TX
- *42. *Molecular Gas in Circumstellar Disks with ALMA* (contributed poster)
American Astronomical Society 231st Meeting, 2018, National Harbor, MD
- *41. *Gas Emission at Millimeter Wavelengths: The ALMA View of Gas in Debris Disks* (invited talk)
RIKEN Gaseous Debris Disks Workshop, 2017, Wako, Japan (remote participation)
- *40. *Molecular Gas in Circumstellar Disks with ALMA* (contributed poster)
Gordon Conference on Origins of Solar Systems, Mt. Holyoke College, 2017, S. Hadley, MA
- *39. *Observational Constraints on Turbulence in Protoplanetary Disks* (invited talk)
KITP Conference: Disks, Dynamos, and Data: Confronting MHD Accretion Theory with Observations, 2017, Santa Barbara, CA
- *38. *Circumstellar Disks and Planet Formation with ALMA* (contributed talk)
MA-CT Regional Star Formation Meeting, 2017, New Haven, CT

- *37. *Outer Architectures of Debris Disks and Planet-Disk Interactions* (invited talk)
High Contrast Imaging in Space, 2016, Baltimore, MD
- *36. *Protoplanetary and Debris Disks* (invited talk)
US Radio/Millimeter/Submillimeter Science Futures in the 2020s, 2015, Chicago, IL
- *35. *Debris Disks in the Age of ALMA* (invited talk)
International Astronomical Union General Assembly, 2015, Honolulu, HI
- *34. *Inclusive Astronomy: Women's Scattered Lunch* (contributed talk)
International Astronomical Union General Assembly, 2015, Honolulu, HI
- *33. *Very Large Array: The Next Generation* (contributed talk)
International Astronomical Union General Assembly, 2015, Honolulu, HI
- *32. *Structure and Composition of Gas and Dust in Debris Disks* (invited talk)
Gordon Conference: Origins of Solar Systems, 2015, South Hadley, MA
- *31. *Masters in Astronomy at Wesleyan University: A Path to the PhD for Non-Traditional Students* (poster)
Inclusive Astronomy Meeting, 2015, Nashville, TN
- *30. *Planet formation in the Age of ALMA* (invited talk)
National Society of Black Physicists Meeting, 2015, Baltimore, MD
- *29. *NextGen VLA Observations of Protoplanetary Disks* (invited talk)
Next Generation VLA Workshop, 225th American Astronomical Society Meeting, 2014, Seattle, WA
- *28. *Gas and Dust in Circumstellar Disks: Review of Recent Results* (invited talk)
Revolution in Astronomy with ALMA – The 3rd Year, 2014, Tokyo, Japan
- *27. *49 Ceti and the Mystery of Gas-Rich Debris Disks* (contributed talk)
Characterizing Planetary Systems Across the HR Diagram, 2014, Cambridge, UK
- *26. *Survey of Recent Results for Young Disks* (invited talk)
Sagan Workshop: Imaging Planets and Disks, 2014, Pasadena, CA
- *25. *Gas and Dust in Debris Disks* (contributed talk)
Submillimeter Array: First Decade of Discovery, 2014, Cambridge, MA
- *24. *CSWA Town Hall: Portrait of a Generation of Women in Astronomy* (Special session organizer)
American Astronomical Society Meeting #223, 2014, National Harbor, MD
- *23. *Observational Constraints on Turbulence in Protoplanetary Disks* (invited talk)
Putting Accretion Theory to the Test, 2013, Annapolis, MD
- *22. *Planet Formation through Radio Eyes* (invited talk)
Astronomical Society of New York Meeting, 2013, Schenectady, NY
- *21. *Protoplanetary Disk Observations: Gas and Dust* (invited talks)
HiPACC Astrocomputing Summer School, 2013, Santa Cruz, CA
- *20. *Debris Disk Morphology and the Dynamics of Planetary Systems* (poster)
IAU Symposium: Exploring the Formation and Evolution of Planetary Systems, 2013, Victoria, Canada
- *19. *Magnetic Fields in T Tauri Disks: What Millimeter Polarimetry Can Tell Us* (invited talk)

Magnetic Fields from Cloud Cores to Protostellar Disks, 2013, Heidelberg, Germany

- *18. *Millimeter-Wavelength Observations of Debris Disks* (invited talk)
From Stars to Life, 2013, Gainesville, FL
17. *Millimeter-Wavelength Observations of Debris Disks and What they Can (or Can't) Tell us about Planets* (contributed talk) Bay Area Exoplanet Science Meeting, 2012, Mountain View, CA
16. *Spatially-Resolved Millimeter Wavelength Imaging of Debris Disks* (poster)
American Astronomical Society Meeting #220, 2012, Anchorage, AK
15. *Dynamics of Protoplanetary and Debris Disks: Turbulence, Magnetic Fields, and Clumps* (invited talk)
Revealing Evolution of Protoplanetary Disks in the ALMA Era, 2012, Kyoto University, Japan
14. *Early ALMA Observations of Circumstellar Disks* (invited talk in special session)
American Astronomical Society Meeting #219, 2012, Austin, TX
13. *Protoplanetary Disks and Star Formation* (invited talk)
Bash Symposium, 2011, Austin, TX
12. *SMA Observations of Circumstellar Disks: Structure, Evolution, and Dynamics* (invited talk)
Star Formation through Spectroimaging at High Angular Resolution, 2011, Taipei, Taiwan
11. *Planet Formation in Circumstellar Disks* (poster)
Miller Institute Interdisciplinary Symposium, 2011, Tomales Bay, CA
10. *Observational Constraints on Accretion Processes from mm Interferometry* (contributed talk)
Transport Processes and Accretion in YSOs, 2011, Ringberg Castle, Germany
9. *Circumstellar Disk Structure and Evolution through Resolved Submillimeter Observations* (dissertation talk)
American Astronomical Society Meeting #215, 2010, Washington, D. C.
8. *Millimeter Wavelength Signatures of Viscous Transport in Protoplanetary Disks* (contributed talk)
From Circumstellar Disks to Planetary Systems, 2009, Garching, Germany
7. *Millimeter Wavelength Signatures of Viscous Transport in Protoplanetary Disks* (poster)
Gordon Conference: Origins of Solar Systems, 2009, Northampton, MA
6. *Constraining Polarized Emission from Circumstellar Disks* (contributed talk)
CfA SMA Science Symposium, 2009, Cambridge, MA
5. *Millimeter-Wavelength Signatures of Disk Accretion* (poster)
5th Spitzer Science Conference: New Light on Young Stars, 2008, Pasadena, CA
4. *Resolving Structure in Transition Disks: Inner Holes* (poster)
Transformational Science with ALMA, 2007, Charlottesville, VA
3. *Resolving Structure in Transition Disks Around Young Stars: Inner Holes* (poster)
ALMA Symposium 2006, Madrid, Spain
2. *Self-Similarity in the Rosette Molecular Cloud* (poster)
American Astronomical Society Meeting #205, 2004, San Diego, CA
1. *Principal Component Analysis of New QSO Samples* (poster)
American Astronomical Society Meeting #203, 2003, Atlanta, GA