

Dr. Meredith A. MacGregor

CONTACT INFORMATION	University of Colorado Boulder Dept. of Astrophysical and Planetary Sciences Boulder, CO 80309	(303) 492-9629 meredith.macgregor@colorado.edu https://casa.colorado.edu/~mema5817/
RESEARCH INTERESTS	Circumstellar disk structure and evolution Astrobiology and origin of life Stellar activity and impact on habitability	Planetary system formation Planet–disk interactions Radio interferometry
EDUCATION	Harvard University , Cambridge, MA Ph.D., Astronomy and Astrophysics, May 2017 <ul style="list-style-type: none">• Thesis Title: ‘Millimeter Studies of Nearby Debris Disks’• Advisor: Dr. David J. Wilner M.A., Astronomy and Astrophysics, May 2013 Harvard University , Cambridge, MA B.A., Astronomy and Astrophysics, Physics, June 2011 <ul style="list-style-type: none">• <i>Cum Laude</i>• Thesis Title: ‘A Search for Fast Optical Transients’• Advisor: Prof. Edo Berger	
ACADEMIC POSITIONS	Assistant Professor University of Colorado Boulder Dept. of Astrophysical and Planetary Sciences Associate Director Center for Astrophysics and Space Astronomy (CASA) NSF Postdoctoral Fellow, Carnegie Fellow Carnegie Department of Terrestrial Magnetism <i>Supervisor: Dr. Alycia J. Weinberger</i> Postdoctoral Researcher Harvard-Smithsonian Center for Astrophysics <i>Supervisor: Dr. David J. Wilner</i> Graduate Research Assistant Dept. of Astronomy, Harvard University <i>Advisor: Dr. David J. Wilner</i> Undergraduate Research Assistant Dept. of Astronomy, Harvard University <i>Advisor: Prof. Edo Berger</i> NSF REU National Radio Astronomy Observatory <i>Advisor: Dr. Jeffery G. Mangum</i> NSF REU Maria Mitchell Observatory <i>Advisor: Dr. Vladimir Strelitski</i>	Jan. 2020 – present May 2021 – present Sept. 2017 – Jan. 2020 May 2017 – Sept. 2017 Sept. 2011 – May 2017 Dec. 2009 – June 2011 May 2010 – Aug. 2010 May 2009 – Aug. 2009
PUBLICATIONS	41 publications in total (12 first author, 4 second author, 14 co-author, 1 popular science, 1 textbook, and 10 unrefereed) with 1038 citations and an h-index of 19 (from Google Scholar). A complete listing is at the end. Several of these publications have been widely covered in the press including The New York Times, CNN, Scientific American, National Geographic, Science News, AAS Nova, Astronomy Picture of the Day (APOD), Forbes, Popular Science, and Popular Mechanics.	

AWARDS

Fellowships and Scholarships

Sialog Fellow, Signatures of Life in the Universe	2020, 2021, 2022
NSF Astronomy and Astrophysics Postdoctoral Fellowship	2017
Carnegie Postdoctoral Fellowship, Carnegie DTM	2017
Jansky Postdoctoral Fellowship (declined)	2017
John P. And Carol J. Merrill Graduate Fellowship	2013
National Science Foundation Graduate Research Fellowship	2011
Smith Family Graduate Science and Engineering Fellowship	2011
Intel Science Talent Search Scholarship	2007
Micron Science and Technology Scholarship	2007
USA Today All-USA High School Academic Scholarship	2007
National Merit Scholarship	2007
Intel Foundation Young Scientist Scholarship	2006
Office of Naval Research Scholarship	2005

Grants

Heising-Simons Foundation, PI (\$55,000)	2021
TESS Cycle 4 Guest Investigator (\$50,000, Science PI: Ward Howard)	2021
Undergraduate Research Opportunities Program (UROP, \$3,000)	2021
NASA ICAR, Institutional PI (\$5 million, Lead PI: Natalia Batalha, UCSC)	2020
NRAO Student Observing Support, PI (\$33,363)	2020
HST Guest Observer Support, Co-I (\$52,231)	2020
Swift Guest Observer Support, PI (\$31,100)	2019
HST Guest Observer Support, PI (\$308,196)	2018
NRAO Student Observing Support, Science PI (\$8,937)	2018
NSF Special Programs in Astronomy AST-1844677, Collaborator (\$22,911)	2018
ALMA Postdoctoral Ambassador (\$10,000)	2018
NSF Astronomy and Astrophysics Postdoctoral Fellowship (\$300,000)	2017

Teaching Awards – Harvard University

UROP Outstanding Mentor Honorable Mention	2021
Certificate of Distinction in Teaching (Astronomy 201b)	2015
Bok Center Teaching Certificate	2014
Certificate of Distinction in Teaching (Astronomy 17)	2012
Certificate of Distinction in Teaching (Astronomy 16)	2012

Student Awards – Harvard University

Goldberg Award for Outstanding Senior Thesis	2011
Goldberg Award for Outstanding Junior Thesis	2010

OBSERVING
EXPERIENCE
AND PROPOSALS

To date, I have been PI of 9 accepted ALMA proposals, 1 Swift proposal (and 2 additional ToO), 1 HST proposal, 1 Chandra DDT proposal, 7 SMA proposals (and 5 additional filler programs), 3 VLA proposals, 1 ATCA, and 1 NOAO proposal totaling over 600 hours of time. I have also been co-I on 16 other successful ALMA proposals, 1 LCOGT key project, 1 HST proposal, 10 SMA proposals, 1 VLA proposal, and 2 GBT proposals. A list of accepted PI proposals follows:

24. <i>The Origin and Impact of Flares in M Dwarf Systems</i>	08/2021
72 hours; ALMA Cycle 8 B-Priority; ID: 2021.1.01209.S	
23. <i>A Search for Circumstellar and Interstellar Gas in The HD 15115 System</i>	01/2020
10 hours; NOAO CHIRON; ID: 2020A-0272	
22. <i>Constraining Collisional Models of Planetesimals in Debris Disks</i>	01/2020
48 hours; VLA B-Ranked; ID: 20A-219	
21. <i>The Origin and Impact of Flares in M Dwarf Systems</i>	11/2019
66.9 hours; ALMA Cycle 7 Supplemental Call; ID: 2019.2.00141.S	

20. *The Origin and Impact of Flares in M Dwarf Systems* 05/2019
4 tracks; SMA A-Ranked; ID: 2019A-S019
19. *The Origin and Impact of Flares in the Proxima Centauri Planetary System* 03/2019
25.2 ks; Chandra DDT; Proposal Number: 20208674
18. *The Origin and Impact of Flares in the Proxima Centauri Planetary System* 02/2019
90 ks; Swift Cycle 15; ID: 1518177
17. *The Origin and Impact of Flares in the Closest Planetary System* 11/2018
44 orbits; HST Cycle 26; ID: GO15651
16. *The Origin and Impact of Flares in M Dwarf Systems* 11/2018
8 tracks; SMA B-Ranked; ID: 2018B-S045
15. *Millimeter Monitoring of the Closest Planetary System -
Stellar and Dust Emission from Proxima Centauri* 07/2018
62.9 hours; ALMA Cycle 6 A-Priority; ID: 2018.1.00470.S
14. *Probing Planet-Disk Interactions in the Fomalhaut System* 07/2018
6.4 hours; ALMA Cycle 6 B-Priority; ID: 2018.1.00582.S
13. *Probing Planet-Disk Interactions in the Fomalhaut System* 07/2017
6.4 hours; ALMA Cycle 5 B-Priority; ID: 2017.1.01043.S
12. *Debris Disk Structure Around Nearby Sun-like Stars with the ACA* 07/2017
14.5 hours; ALMA Cycle 5 C-Priority; ID: 2017.1.01054.S
11. *Debris Disk Structure Around Nearby Sun-like Stars with the ACA* 05/2017
14.5 hours; ALMA Cycle 4 Filler; ID: 2016.2.00015.S
10. *Debris Disks Around Tau Ceti and Epsilon Eridani* 08/2016
17.7 hours; ALMA Cycle 4 C-Priority; ID: 2016.1.00803.S
9. *Structure of the 56 Aur Debris Disk* 10/2015
4 tracks; SMA B-Ranked; ID: 2015B-S014
8. *Structure of the HD 32297 Debris Disk* 10/2014
2 tracks; SMA A-Ranked; ID: 2014B-S001
7. *Deciphering Debris Disk Structure and Eccentricity* 05/2014
2 tracks; SMA B-Ranked; ID: 2014A-S051
6. *Structure in the Eps Eridani Debris Disk* 04/2014
48 hours; ATCA A-Ranked; ID: C2931
5. *Constraining Collisional Models of Planetesimals in Debris Disks* 11/2013
28 hours; VLA A- and B-Ranked; ID: 14A-225
4. *Constraining the Structure and Eccentricity of Debris Disks* 11/2013
3 tracks; SMA B-Ranked; ID: 2013B-S049
3. *Structure of the HD 15115 Debris Disk* 05/2013
2 tracks; SMA A-Ranked; ID: 2013A-S024
2. *Testing Collisional Models of Planetesimals in the AU Mic Debris Disk* 11/2012
2.5 hours; VLA A-Ranked; ID: 13A-301
1. *Resolving Millimeter Emission from the q1 Eri Debris Disk* 11/2012
2.6 hours; ALMA Cycle 1 B-Priority; ID: 2012.1.00112.S

INVITED TALKS,
SEMINARS, AND
COLLOQUIA

- | | |
|---|------|
| Featured Science Talk on JWST at Fiske Planetarium, Boulder, CO | 2021 |
| American Philosophical Society Fall Meeting (remote) | 2021 |
| University of New Mexico Colloquium, Albuquerque, NM | 2021 |
| California State University Northridge Colloquium, Los Angeles, CA (remote) | 2021 |
| CMB-S4 Collaboration Meeting (remote) | 2021 |
| Maria Mitchell Science Speaker Series, Nantucket, MA (remote) | 2021 |
| NASA Goddard Exoplanet Seminar, Greenbelt, MD (remote) | 2021 |
| Division on Dynamical Astronomy Meeting (remote) | 2021 |

Golden Webinar panelist, Pontifica Universidad Catolica, Chile (remote)	2021
Stars and Planets in the Ultraviolet, Tempe, AZ (delayed from 2020)	2021
Herzberg Astronomy & Astrophysics Colloquium, Victoria, BC, Canada (remote)	2021
Washington State University Colloquium, Pullman, WA (remote)	2020
Maria Mitchell Science Speaker Series, Nantucket, MA (remote)	2020
Spirit of Lyot Conference, Tokyo, Japan	2019
Kavli Futures of Exoplanets, TESS Science Conference, Boston, MA	2019
Understanding the Nearby Star-forming Universe with JWST, Courmayeur, Italy	2019
Barry Blumberg Astrobiology Workshop, Green Bank Observatory, WV	2019
CosmoMeet, University of Maryland, College Park, MD	2019
Liz Myhill Memorial Seminar, Marymount University, Arlington, MD	2019
DTM Lunch & Learn, Carnegie DTM, Washington, DC	2019
NASA Goddard ASD Colloquium Series, Greenbelt, MD	2019
Society for Science and the Public Alumni Panel, Washington, DC	2019
SOFIA Colloquium, NASA Ames, Mountain View, CA	2019
University of Wisconsin Colloquium, Madison, WI	2019
University of Colorado APS Colloquium, Boulder, CO	2019
Penn State Center for Exoplanets and Habitable Worlds, State College, PA	2019
Exploring our Cosmic Origins: New Results from ALMA, AAS 233, Seattle, WA	2019
ExoPAG 19, AAS 233, Seattle, WA	2019
University of Delaware Astronomy & Space Physics Seminar, Newark, DE	2018
11th Meeting on Cosmic Dust, Sagamihara, Japan	2018
Carnegie DTM Colloquium, Washington, D.C.	2018
University of Maryland Astronomy Colloquium, College Park, MD	2018
AMNH Astrophysics Seminar, New York, NY	2018
University of Chicago Special Seminar, Chicago, IL	2018
STScI Exoplanet, Star and Planet Formation Seminar, Baltimore, MD	2018
SPHEREx Synergies Workshop, Cambridge, MA	2018
SMA Special Session, AAS 231, Washington, D.C.	2018
Caltech Astronomy Colloquium, Pasadena, CA	2017
Berkeley CIPS Seminar, Berkeley, CA	2016
NASA Goddard Exoplanet Seminar, Greenbelt, MD	2016
Carnegie DTM Friday Seminar, Washington, D.C.	2016
NOAO Friday Lunch Talk, Tucson, AZ	2016
NRAO TUNA Lunch Talk, Charlottesville, VA	2016
MIT Planetary Lunch Colloquium, Cambridge, MA	2016
CfA Stars & Planets Seminar, Cambridge, MA	2016
Boston University Lunch Talk, Boston, MA	2016
NASA Far-IR SIG Meeting, 227th AAS Meeting, Kissimmee, FL	2016
SMA Science Meeting, Cambridge, MA	2015
Banneker Institute CASA Seminar, Cambridge, MA	2015
SMA Lunch Talk, Hilo, Hawaii	2015
NRAO Lunch Talk, Socorro, NM	2014
Swinburne University Colloquium, Melbourne, Australia	2014

CONFERENCE
CONTRIBUTIONS

28. *Discovery of an Extremely Short Duration ‘Building Block’ Flare from Proxima Centauri Using Millimeter through FUV Observations* (poster)
Cool Stars 20.5, remote, 2021
27. *Discovery of an Extremely Short Duration ‘Building Block’ Flare from Proxima Centauri Using Millimeter through FUV Observations* (talk)
Habitable Worlds, remote, 2021
26. *Discovery of an Extremely Short Duration ‘Building Block’ Flare from Proxima Centauri Using Millimeter through FUV Observations* (remote talk)
237th American Astronomical Society Meeting, 2020

25. *Invited Panelist, Disk Evolution and Demographics* (remote discussion)
Five Years After HL Tau: A New Era in Planet Formation, 2020
24. *Connecting Structure in Edge-On Debris Disks to Planetary Systems* (poster)
Gordon Research Conference: Origins of Solar Systems, 2019, South Hadley, MA
23. *Connecting Structure in Edge-On Debris Disks to Planetary Systems* (talk)
New Horizons in Planetary Systems, 2019, Victoria, BC, Canada
22. *Probing Planet Formation and Habitability with ALMA* (talk)
NSF AAPF Symposium at 233rd AAS Meeting, 2019, Seattle, WA
21. *A Gap in the HD 15115 Debris Disk Detected with ALMA* (talk)
233rd American Astronomical Society Meeting, 2019, Seattle, WA
20. *Extended Millimeter Halos in the HD 32297 and HD 61005 Debris Disks* (talk)
7th National Capital Area Disks Meeting, 2019, Baltimore, MD
19. *Detection of a Millimeter Flare from Proxima Centauri* (plenary talk)
Cool Stars 20, 2018, Boston, MA
18. *Detection of a Millimeter Flare from Proxima Centauri* (talk)
ChExo Meeting, 2018, Washington, D.C.
17. *Debris Disk Grain Size Distributions from Millimeter Observations* (talk)
Berkeley CIPS Workshop, 2018, Berkeley, CA
16. *New ALMA Images of the HD 32297 and HD 61005 Debris Disks* (poster)
Star and Planet Formation in the Southwest 2, 2018, Tucson, AZ
15. *Debris Disk as Probes of Planetary System Formation* (talk)
NSF AAPF Symposium at 231st AAS Meeting, 2018, Washington, DC
14. *New ALMA Images of the HD 32297 and HD 61005 Debris Disks* (talk)
231st American Astronomical Society Meeting, 2018, Washington, DC
13. *A Complete ALMA Map of the Fomalhaut Debris Disk* (talk)
Gordon Research Seminar: Origins of Solar Systems, 2017, South Hadley, MA
12. *A Complete ALMA Map of the Fomalhaut Debris Disk* (poster)
Gordon Research Conference: Origins of Solar Systems, 2017, South Hadley, MA
11. *Millimeter Studies of Nearby Debris Disks* (dissertation talk)
229th American Astronomical Society Meeting, 2017, Grapevine, TX
10. *ALMA Observations of the GQ Lup System* (talk)
'Resolving planet formation in the era of ALMA', 2016, Santiago, Chile
9. *Constraining Collisional Models of Planetesimals in Debris Disks* (talk)
227th American Astronomical Society Meeting, 2016, Kissimmee, FL
8. *Constraining Collisional Models of Planetesimals in Debris Disks* (poster)
Gordon Conference: Origins of Solar Systems, 2015, South Hadley, MA
7. *A New Millimeter Look at the HD 15115 Debris Disk* (poster)
224th American Astronomical Society Meeting, 2014, Boston, MA
6. *A New Millimeter Look at the HD 15115 Debris Disk* (poster)
SMA: First Decade of Discovery, 2014, Cambridge, MA
5. *A Resolved Millimeter Emission Belt in the AU Mic Debris Disk* (talk)
Formation and Evolution of Planetary Systems, 2013, Victoria, BC, Canada
4. *Millimeter Emission Structure in the AU Mic Debris Disk* (talk)
ALMA Rocks! Transformational Science with ALMA, 2013, Kona, Hawaii
3. *Measuring CMB Temperature with an Inexpensive, Student Lab Experiment* (talk)
USNC-URSI National Radio Science Meeting, 2012, Boulder, CO
2. *Densitometry and Thermometry of Starburst Galaxies* (poster)
217th American Astronomical Society Meeting, 2011, Seattle, WA
1. *Variations of Physical Conditions in the Cores of Molecular Clouds as Probed by J_0-J_{-1} Methanol Lines at 157 GHz* (poster)
215th American Astronomical Society Meeting, 2010, Washington, DC

ADVISING AND EXAM COMMITTEES	<p>University of Colorado Boulder <i>Postdoctoral Researchers – Research Advisor</i> Ward Howard 2021 – present</p> <p><i>Graduate Students – Research Advisor</i> Brandon Hilliard 2021 – present Kiana Burton 2021 – present Jay Chittidi 2021 – present Isaiah Tristan (partial advisor) 2020 – present</p> <p><i>Undergraduate Students – Research Advisor</i> Christina Lucas (UROP grant) 2021 – present Meggan Amos (UROP grant) 2021 – present Spencer Hurt (Goldwater and Astronaut Scholarship winner) 2020 – present Kiana Burton (through Maria Mitchell REU, Chambliss award winner) 2020 – 2021 Anna Estes (UROP grant, APS scholarship, Chambliss award winner) 2020 – 2021</p> <p><i>Thesis Committee</i> Connor Frederick (physics) 2021 Elizabeth Butler 2021 – present Samantha Walker 2021 – present Alexander Zderic 2021 Girish Duvvuri (chair) 2020 – present William Waalkes 2020 – present Nicole Arulanantham 2020</p> <p><i>Comps II Committee</i> Whitney Powers (non-advocate chair) 2021 Isaiah Tristian 2021 Imogene Cresswell (non-advocate chair) 2021 Parker Hinton (non-advocate chair) 2021 Tatsuya Akiba 2021 Johnathan Stauffer 2020 Angi Harke-Hosemann 2020</p> <p><i>Teaching Mentor</i> Angela Collier Summer 2020</p> <p>External Examiner Matthew Fields (PhD, University of North Carolina) 2021 – present Katie Crofts (Masters Defense, University of British Columbia) 2020</p> <p>Carnegie DTM Jackson Fuson (undergrad, University of California Irvine) 2019 Bella Marku (undergrad, Virginia Tech) 2019 Lara Stroud (high school student) 2019 Samantha O’Sullivan (undergrad, Harvard University) 2018</p> <p>Harvard University – Banneker Institute Elizabeth Gutierrez (undergrad, University of Texas at Austin) 2017 Rachel Gilchrist (undergrad, Harvard University) 2016</p>
TEACHING	<p>University of Colorado Boulder – Lead Instructor ASTR 3710 – Formation & Dynamics of Planetary Systems Fall 2021 ASTR/GEO 2040 – The Search for Life in the Universe Spring 2021 ASTR 5820 – Origin of Planetary Systems Fall 2020 ASTR/GEO 2040 – The Search for Life in the Universe Spring 2020</p>

Harvard University – Teaching Fellow

Astro. 201b - The Physics and Chemistry of the Interstellar Medium	Spring 2015
Astro. 17 - Galactic and Extragalactic Astronomy	Fall 2012
Astro. 16 - Stellar and Planetary Astronomy	Spring 2012

PROFESSIONAL
SERVICE**University of Colorado Boulder**

CU Boulder APS Instructor Hiring Committee	2021 – present
CU Boulder APS Quality Teaching Initiative Committee	2021 – present
CASA Associate Director	2021 – present
CTL Anti-Racist Pedagogy Learning Community	2021
CU Boulder Undergraduate Professional Development Lead	2020 – present
CU Boulder Colloquium Committee	2020 – present
CU Boulder Undergraduate Curriculum and Concerns Committee	2020 – present
CASA Executive Committee	2020 – present
CU Boulder APS Fall 2020 Planning Committee	2020
CU Boulder Grad Orientation Planning Committee	2020

Astronomical Community

Kavli Summer Program SOC	2021 – present
Skumanich Conference LOC	2021 – present
Green Bank Observatory Program Operations Review Panel	2021
Co-Chair of NASA IR SIG Leadership Council	2020 – present
ALMA Development Studies Review Panel	2020 – present
Reviewer for Chilean FONDECYT Program	2020 – present
SOFIA Science Workshop SOC	2020
NSF AAPF Symposium Organizer	2018 – 2019
7th National Capital Area Disks Meeting SOC	2018
NASA Review Panels (multiple programs)	2017 – present
Origins Space Telescope Disks and Planet Formation Working Group	2017 – 2021
Gordon Research Seminar Origins of Solar Systems Chair	2017 – 2019
Member of NASA IR SIG Leadership Council	2016 – present
Referee for MNRAS, ApJ, ApJL, Nature, Planetary Science Journal	2016 – present
Member of ALMA Time-domain Special Interest Group	2016 – present
Judge for Chambliss student poster award at AAS	2015 – present

Carnegie DTM

Carnegie Institution Postdoctoral Association (CIPA)	2018 – 2020
DTM Astronomy Seminar Organizer	2018 – 2020

Harvard University

Local organizing committee for APS CUWiP at Harvard	2015 – 2017
Astronomy graduate retreat committee	2014 – 2015
Mentor to first-year Harvard graduate students	2014 – 2015
Organizer of Harvard graduate prospective weekend	2013
Mentor to Harvard undergraduate women in science	2011 – 2014

OUTREACH

WorldWide Telescope Ambassador

2013 – present

- Member of virtual community of educators who use WWT in classrooms
- Designed an interactive kiosk for the Harvard Science Center to introduce students and the public to astronomy at Harvard
- Taught new curricula to students Cambridge and Lexington, MA
- Participated in outreach events including the U.S. Science and Engineering Festival

First Light - Carnegie Academy for Science Education

2018 – 2020

- Wrote and led teaching of an astrobiology curriculum during 2018-2019 academic year

- Designed new hands-on activities and instructed local teachers on how to incorporate them into their classrooms
- Led teacher training workshops through KIPP DC to share curricular materials
- Participated in multiple DC area STEM fairs

Nonresident tutor in Pforzheimer House 2014 – 2017

- Organized weekly problem help sessions for Harvard undergraduate students taking physics and astronomy courses

Cambridge Science Festival Volunteer 2012 – 2017

- Presented astronomy to the public at the yearly event in Cambridge, MA

The Scientista Foundation Boston Regional Officer 2011 – 2013

- Organized networking events for women scientists in the Boston area

Science Club for Girls Mentor 2009 – 2014

- Led an after-school science program for K-6 girls at the Amigos School in Cambridge, MA
- Founded a Harvard Chapter of the organization and helped recruit new volunteers

REFEREED
PUBLICATIONS

12 First Author
4 Second Author
14 Co-Author
30 Total

*** indicates top
five cited papers

First Author

12. *Discovery of an Extremely Short Duration Flare from Proxima Centauri Using Millimeter through FUV Observations*

M. A. MacGregor, and 19 co-authors

Astrophysical Journal Letters, 911, L25, 2021 (arXiv:2104.09519)

Citations: 11

11. *Properties of M Dwarf Flares at Millimeter Wavelengths*

M. A. MacGregor, R. A. Osten, A. M. Hughes

Astrophysical Journal, 891, 80, 2020 (arXiv:2001.10546)

Citations: 8

10. *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

Astrophysical Journal Letters, 877, L32, 2019 (arXiv:1905.08258)

Citations: 18

9. *ALMA Detection of Extended Millimeter Halos in the HD 32297 and HD 61005 Debris Disks*

M. A. MacGregor, A. J. Weinberger, A. M. Hughes, D. J. Wilner, T. Currie, J. H. Debes, J. K. Donaldson, S. Redfield, A. Roberge, G. Schneider

Astrophysical Journal, 869, 75, 2018 (arXiv:1812.05610)

Citations: 24

8. ****Detection of a Millimeter Flare From Proxima Centauri*

M. A. MacGregor, A. J. Weinberger, D. J. Wilner, A. F. Kowalski, S. R. Cranmer

Astrophysical Journal Letters, 855, L2, 2018 (arXiv:1802.08257)

Citations: 58

7. ****A Complete ALMA Map of the Fomalhaut Debris Disk*

M. A. MacGregor, and 16 co-authors

Astrophysical Journal, 842, 8, 2017 (arXiv:1705.05867)

Citations: 58

6. *ALMA Measurements of Circumstellar Material in the GQ Lup System*

M. A. MacGregor, D. J. Wilner, I. Czekala, S. M. Andrews, Y. S. Dai, G. J. Herczeg, K. M. Kratter, A. L. Kraus, L. Ricci, L. Testi

- Astrophysical Journal, 835, 17, 2017 (arXiv:1611.06229)
Citations: 37
5. *ALMA Observations of the Debris Disk of Solar Analogue Tau Ceti*
M. A. MacGregor, S. M. Lawler, D. J. Wilner, B. C. Matthews, G. M. Kennedy,
M. Booth, J. Di Francesco
Astrophysical Journal, 828, 113, 2016 (arXiv:1607.02513)
Citations: 32
 4. ****Constraints on Planetesimal Collision Models in Debris Disks*
M. A. MacGregor, D. J. Wilner, C. Chandler, L. Ricci, S. T. Maddison, S. R.
Cranmer, S. M. Andrews, A. M. Hughes, A. Steele
Astrophysical Journal, 823, 79, 2016 (arXiv:1603.05644)
Citations: 65
 3. *The Epsilon Eridani System Resolved by Millimeter Interferometry*
M. A. MacGregor, D. J. Wilner, S. M. Andrews, J.-F. Lestrade, S. Maddison
Astrophysical Journal, 809, 47, 2015 (arXiv:1507.01642)
Citations: 43
 2. *Resolved Millimeter Emission from the HD 15115 Debris Disk*
M. A. MacGregor, D. J. Wilner, S. M. Andrews, A. M. Hughes
Astrophysical Journal, 801, 59, 2015 (arXiv:1501.05962)
Citations: 27
 1. ****Millimeter Emission Structure in the First ALMA Image of the AU Mic Debris Disk*
M. A. MacGregor, and 12 co-authors
Astrophysical Journal Letters, 762, L21, 2013 (arXiv:1211.5148)
Citations: 93

Second Author and Co-Author

18. *No Such Thing as a Simple Flare: Substructure and QPPs Observed in a Statistical Sample of 20 Second Cadence TESS Flares*
W. S. Howard & **M. A. MacGregor**
Submitted to Astrophysical Journal, 2021 (arXiv:2110.13155)
17. *A Radiatively Driven Wind from the Eta Tel Debris Disk*
A. Youngblood, A. Roberge, **M. A. MacGregor**, and 5 co-authors
Astronomical Journal, 162, 235, 2021 (arXiv:2108.11965)
16. *High resolution ALMA and HST images of q^1 Eri: an asymmetric debris disc with an eccentric Jupiter*
J. B. Lovell, and 12 co-authors including **M. A. MacGregor**
Monthly Notices of the Royal Astronomical Society, 506, 1978, 2021 (arXiv:2106.05975)
15. *A Deep Polarimetric Study of the Asymmetrical Debris Disk HD 106906*
K. Crotts, and 18 co-authors including **M. A. MacGregor**
Astrophysical Journal, 915, 58, 2021 (arXiv:2105.05995)
14. *A Flare-Type IV Burst Event from Proxima Centauri and Implications for Space Weather*
A. Zic, and 12 co-authors including **M. MacGregor**
Astrophysical Journal, 905, 23, 2020 (arXiv:2012.04642)
Citations: 16
13. *The REASONS Survey: Resolved Millimeter Observations of a Large Debris Disk Around the Nearby F Star HD 17077*
A. G. Sepulveda, and 17 co-authors including **M. MacGregor**

- Astrophysical Journal, 881, 84, 2019 (arXiv:1906.08797)
Citations: 10
12. *Review: Far-Infrared Instrumentation and Technology Development for the Next Decade*
D. Farrah, and 34 co-authors including **M. MacGregor**
Journal of Astronomical Telescopes, Instruments, and Systems, 5(2), 1, 2019 (arXiv:1709.02389)
Citations: 41
 11. *Deep ALMA Search for CO Gas in the HD 95086 Debris Disc*
M. Booth, L. Matrà, K. Y. L. Su, Q. Kral, A. S. Hales, W. R. F. Dent, A. M. Hughes, **M. A. MacGregor**, T. Löhne, D. J. Wilner
Monthly Notices of the Royal Astronomical Society, 482, 3443, 2018 (arXiv:1811.00412)
Citations: 15
 10. *Resolved Millimeter Observations of the HR 8799 Debris Disk*
D. J. Wilner, **M. A. MacGregor**, S. M. Andrews, A. M. Hughes, B. C. Matthews, K. Y. L. Su
Astrophysical Journal, 855, 56, 2018 (arXiv:1803.00054)
Citations: 29
 9. *ALMA and VLA Observations of the HD 141569 System*
J. A. White, A. C. Boley, **M. A. MacGregor**, A. M. Hughes, D. J. Wilner
Monthly Notices of the Royal Astronomical Society, 474, 4500, 2018 (arXiv:1711.07489)
Citations: 15
 8. *ALMA 1.3 Millimeter Map of the HD 95086 System*
K. Y. L. Su, **M. A. MacGregor**, and 14 co-authors
Astronomical Journal, 154, 225, 2017 (arXiv:1709.10129)
Citations: 36
 7. ****Detection of exocometary CO within the 440 Myr-old Fomalhaut belt: a similar CO+CO₂ ice abundance in exocomets and Solar System comets*
L. Matrà, **M. A. MacGregor**, and 14 co-authors
Astrophysical Journal, 842, 9, 2017 (arXiv:1705.05868)
Citations: 89
 6. ****A Multi-Ringed, Modestly-Inclined Protoplanetary Disk Around AA Tau*
R. A. Loomis, K. I. Öberg, S. M. Andrews, **M. A. MacGregor**
Astrophysical Journal, 840, 23, 2017 (arXiv:1704.02006)
Citations: 120
 5. *An ATCA survey of debris disks at 7 millimeters*
L. Ricci, S. T. Maddison, D. Wilner, **M. A. MacGregor**, C. Ubach, J. M. Carpenter, L. Testi
Astrophysical Journal, 813, 138, 2015 (arXiv:1510.03513)
Citations: 27
 4. *The AU Mic Debris Disk: Far-infrared and Submillimeter Resolved Imaging*
B. C. Matthews, and 22 co-authors including **M. MacGregor**
Astrophysical Journal, 811, 100, 2015 (arXiv:1509.06415)
Citations: 32
 3. *Ammonia Thermometry of Star-Forming Galaxies*
J. G. Mangum, J. Darling, C. Henkel, K. M. Menten, **M. MacGregor**, B. E. Svoboda, E. Schinnerer
Astrophysical Journal, 779, 33, 2013 (arXiv:1310.6586)
Citations: 40

2. *Constraining a Model of Turbulent Coronal Heating for AU Microscopii with X-Ray, Radio, and Millimeter Observations*
S. R. Cranmer, D. J. Wilner, **M. A. MacGregor**
Astrophysical Journal, 772, 149, 2013 (arXiv:1306.4567)
Citations: 28
1. *A Resolved Millimeter Emission Belt in the AU Mic Debris Disk*
D. J. Wilner, S. M. Andrews, **M. A. MacGregor**, A. M. Hughes
Astrophysical Journal Letters, 749, L27, 2013 (arXiv:1203.1896)
Citations: 35

POPULAR SCIENCE

1. *A Planet is Born*
M. A. MacGregor
Scientific American, 322, 6, 52–61, June 2020

TEXTBOOKS

1. *Life in the Universe*
J. Bennett, S. Shostak, N. Schneider & **M. A. MacGregor**
Princeton University Press, expected by Fall 2022

UNREFEREED
PUBLICATIONS

10. *Modeling Debris Disk Evolution*
A. Gaspar, and 45 co-authors including **M. MacGregor**
Submitted to Astro2020 Decadal Survey, BAAS, 51, 69, 2019
Citations: 1
9. *A NASA-led US Contribution to the ESA/JAXA SPICA Mission: Unveiling the Dust Obscured Universe*
A. Cooray, and 37 co-authors including **M. MacGregor**
Submitted to Astro2020 Decadal Survey, BAAS, 51, 87, 2019
8. *A Realistic Roadmap to Formation Flying Space Interferometry*
J. Monnier, and 67 co-authors including **M. MacGregor**
Submitted to Astro2020 Decadal Survey, BAAS, 51, 153, 2019
Citations: 5
7. *A Long-Term Vision for Space-Based Interferometry*
S. Rinehart, and 26 co-authors including **M. MacGregor**
Submitted to Astro2020 Decadal Survey, BAAS, 51, 222, 2019
6. *Probing Unseen Planet Populations with Resolved Debris Disk Structures*
K. Su, and 12 co-authors including **M. MacGregor**
Submitted to Astro2020 Decadal Survey, BAAS, 51, 419, 2019
5. *Advancing Understanding of Star-Planet Ecosystems in the Next Decade: The Radio Wavelength Perspective*
R. Osten, and 15 co-authors including **M. MacGregor**
Submitted to Astro2020 Decadal Survey, BAAS, 51, 434, 2019
4. *Science Impacts of the SPHEREx All-Sky Optical to Near-Infrared Spectral Survey II: Report of a Community Workshop on the Scientific Synergies Between the SPHEREx Survey and Other Astronomy Observatories*
O. Doré, and 62 co-authors including **M. MacGregor**
Available on arXiv, 2018 (arXiv:1805.05489)
Citations: 17

3. *Enabling New ALMA Science with Improved Support for Time-Domain Observations*
Corresponding author P. K. G. Williams, and 37 co-authors including **M. MacGregor**
Submitted to ALMA Science Advisory Council, 2017 (arXiv:1703.04692)
2. *A Resolved Millimeter Emission Belt in the AU Mic Debris Disk*
M. A. MacGregor
Exploring the Formation and Evolution of Planetary Systems, Proceedings of the
International Astronomical Union, IAU Symposium, 299, 313, 2014
Citations: 2
1. *Densitometry and Thermometry of Starburst Galaxies*
J. G. Mangum, J. Darling, K. M. Menten, C. Henkel, **M. MacGregor**
EAS Publication Series, 52, 71, 2011 (arXiv:1102.1395)