

**SINCLAIRE M. MANNING**  
CURRICULUM VITAE

---

Department of Astronomy  
University of Massachusetts Amherst  
710 North Pleasant Street  
Amherst, MA 01003

*email:* smanning@astro.umass.edu  
*website:* smanning-astro.github.io  
*twitter:* smanning206  
ORCID: 0000-0003-0415-0121

---

## EDUCATION

---

**The University of Texas at Austin** (2015 - 2021)  
Ph.D. in Astronomy, Awarded August 2021  
Department of Astronomy, Advisor: Prof. Caitlin Casey  
**Howard University**, Washington, D.C. (2010 - 2015)  
B.S. in Physics, *magna cum laude*, May 2015  
B.A. in Spanish, *magna cum laude*, May 2015

## PROFESSIONAL APPOINTMENTS

---

NASA Hubble Postdoctoral Fellow, UMass Amherst (2021 –)  
Graduate Research Assistant, UT Austin (2015 - 2016, 2019 - 2021)  
NSF Graduate Research Fellow, UT Austin (2016 - 2019)  
Undergraduate Research Assistant, University of Wisconsin - Madison (Jun-Aug 2014)  
Summer Student Research Assistant, NRAO Charlottesville, VA (Jun-Aug 2012, 2013)

## RESEARCH INTERESTS

---

**Observational galaxy formation and evolution, including:** dusty star-forming galaxies (DSFGs), optically/near-infrared dark DSFGs, (sub)millimeter observations, multiwavelength galaxy morphologies, dust content, mergers, AGN fraction.

## FELLOWSHIPS, GRANTS, AWARDS, & HONORS

---

**NASA Hubble Fellowship Program**, STScI (2021)  
\$270,000 Postdoctoral fellowship awarded over three years  
**Student Observing Support (SOS) program**, NRAO (2020)  
\$18,000 Supplemental funding for ALMA Cycles 6 and 7  
**Graduate Research Opportunities Worldwide (GROW)**, NSF (2019)  
\$5000 Travel grant to work as a visiting PhD student at DAWN in Copenhagen, Denmark  
**Hubble Space Telescope General Observer Grant, Cycle 27**, NASA (2019)  
\$126,813, (Co-I, PI: Casey) *Rest-frame UV/optical Morphologies of Obscured Radio Starbursts: Comparing Obscured and Unobscured Star-formation on kpc Scales*  
**UT Graduate School Professional Development Award** (2019)  
\$600 Travel support to attend ISEE PDP workshops  
**Fred Goetting Memorial Endowed Presidential Scholarship**, UT Austin (2018)  
\$10,000 Recognizing a graduate student for outstanding service to the department

<b>Beth Brown Award for Outstanding Oral Presentation in Astronomy</b>	(2018)
Honorable Mention, National Society of Black Physicists (NSBP)	
<b>Graduate Research Fellow</b> , National Science Foundation	(2016-2019)
\$102,000 Graduate fellowship awarded over three years	

## COLLOQUIA AND INVITED TALKS

---

- |   |             |
|---|-------------|
| • Colloquium, University of Wisconsin Madison Dept. of Astronomy  | (May 2022)  |
| • Colloquium, UMass Amherst Dept. of Astronomy                    | (Apr. 2022) |
| • Invited Seminar, University of Connecticut Dept. of Physics     | (Apr. 2022) |
| • Colloquium, Boston University Dept. of Astronomy                | (Mar. 2022) |
| • Invited Seminar, UC Irvine Astrophysics Seminar (Virtual)       | (Jan. 2021) |
| • Invited Seminar, JILA/CU Boulder Astrophysics Seminar (Virtual) | (Oct. 2020) |
| • Colloquium, Syracuse University Dept. of Physics (Virtual)      | (Oct. 2020) |
| • TUNA Talk, NRAO, Charlottesville, VA                            | (2016)      |

## SERVICE AND MENTORSHIP

---

FCAD Colloquium Organizing Committee	present
NAC VII Organizing Committee	(2020)
Graduate Student Mentor for Undergraduates, GUMMY Program, UT Austin	(2019-2020)
Seminar Coordinator for TAURUS Program, UT Austin	(2016-2020)
Graduate Student Mentor for TAURUS, UT Austin	(2016-2020)
NAC Peer Mentor	(2015-2021)

## PUBLIC OUTREACH

---

- |  |             |
|--|-------------|
| • Eureka! Workshop, UMass                                      | (2022)      |
| • Astronomy on Tap State College, Guest Speaker (Virtual)      | (2020)      |
| • Austin Astronomical Society, Guest Speaker (Austin, TX)      | (2019)      |
| • Astronomy on Tap ATX, Guest Speaker (Austin, TX)             | (2019)      |
| • AUSPREP Career Awareness Seminar, Guest Speaker (Austin, TX) | (2017)      |
| • Astronomy on Tap ATX, Guest Speaker (Austin, TX)             | (2017)      |
| • Girl Day at UT Austin, Volunteer (Austin, TX)                | (2016-2017) |
| • NAC IV Meeting, Alumni Voices Speaker (Washington, D.C.)     | (2016)      |

## ADDITIONAL EXPERIENCE

---

### Teaching: Guest Lecturer

- ASTRO 301: Writing About Astronomy (Fall 2022, UMass)
- ASTRO 111: Introduction to Astronomy (Fall 2022, Smith College)
- ASTRO 100: Exploring the Universe (Spring 2022, UMass)

### Computing: Experience with IDL and Python

### Telescopes & Observing Experience:

- Atacama Large Millimeter Array

- *Hubble Space Telescope* (WFC3, ACS)
- *Spitzer Space Telescope* (IRAC)
- Multi-Element Radio Linked Interferometer Network
- Hobby-Eberly Telescope
- James Clerk Maxwell Telescope (5 nights; Subaru)

#### Surveys and Large Collaborations:

- JWST COSMOS-Web Survey (2021 –)
- SuperCLASS Collaboration (2015 –)

#### Professional Development:

- Institute for Scientist and Engineer Educators (2018-2019)  
Professional Development Program (ISEE PDP), UCSC

#### Professional Memberships:

- American Astronomical Society, Member (2016 –)
- National Society of Black Physicists, Member (2015 –)

#### PUBLICATIONS (2 first author, 8 co-author)

---

##### *Probing Cold Gas in a Massive, Compact Star-forming Galaxy at $z = 6$*

Zavala, J., Casey, C.M., Spilker, J., Tadaki, K., Tsujita, A., Champagne, J., Iono, D., Kohno, K., **Manning, S.M.**, Montana, A., (2022), *ApJ*, 933, 242

##### *Characterization of Two 2 mm-detected Optically-Obscured Dusty Star-Forming Galaxies*

**Manning, S.M.**, Casey, C.M., Zavala, J., Magdis, G.E., Drew, P.M., Champagne, J.B., Aravena, M., Béthermin, M., Clements, D.L., Finkelstein, S.L., Fujimoto, S., Hayward, C.C., Hodge, J.A., Ilbert, Kartaltepe, J.S., Knudsen, K.K., Koekemoer, A.M., Man, A.W.S., Sanders, D.B., Sheth, K., Spilker, J.S., Staguhn, J., Talia, M., Treister, E., Yun, M.S., (2022), *ApJ*, 925, 23

##### *Mapping Obscuration to Reionization with ALMA (MORA): 2 mm Efficiently Selects the Highest-redshift Obscured Galaxies*

Casey, C.M., Zavala, J., **Manning, S.M.**, et al., (2021), *ApJ*, 923, 215

##### *The Evolution of the IR Luminosity Function and Dust-obscured Star Formation in the Last 13 Billion Years*

Zavala, J., Casey, C.M., **Manning, S.M.**, Aravena, M., Béthermin, M., Caputi, K.I., Clements, D.L., da Cunha, E., Drew, P., Finkelstein, S.L., Fujimoto, S., Hayward, C., Hodge, J., Kartaltepe, J.S., Knudsen, K., Koekemoer, A.M., Long, A.S., Magdis, G.E., Man, A.W.S., Popping, G., Sanders, D., Scoville, N., Sheth, K., Staguhn, J., Toft, S., Treister, E., Vieira, J.D., Yun, M.S., (2021), *ApJ*, 909, 165

##### *Physical Drivers of the Luminosity-Weighted Dust Temperatures in High-Redshift Galaxies*

Burnham, A.D., Casey, C.M., Zavala, J.A., **Manning, S.M.**, Spilker, J.S., Capak, P., Chapman, S.C., Chen, C.-C., Cooray, A., Hayward, C., Sanders, D.B., Scoville, N.Z., Sheth, K., (2021), *ApJ*, 910, 89

##### *SuperCLASS – II. Photometric Redshifts and Characteristics of Spatially-Resolved $\mu$ Jy Radio Sources*

**Manning, S.M.**, Casey, C.M., Hung, C.-L., Battye, R., Brown, M.L., Jackson, N., Abdalla, F.,

Chapman, S., Demetroullas, C., Drew, P., Hales, C.A., Harrison, I., Riseley, C.J., Sanders, D.B., Watson, R.A., (2020), MNRAS, 495, 1724

***SuperCLASS – I. The Super CLuster Assisted Shear Survey: Project Overview and First Data Release***

Battye, R.A., Brown, M.B., Casey, C.M., Harrison, I., Jackson, N.J., Smail, I., Watson, R.A., Hales, C.A., **Manning, S.M.**, Hung, C.-L., Riseley, C.J., Abdalla, F.B., Birkinshaw, M., Demetroullas, C., Scott, C., Beswick, R.J., Muxlow, T.W.B., Bonaldi, A., Camera, S., Hillier, T., Kay, S.T., Peters, A., Sanders, D.B., Thomas, D.B., Thomson, A.P., Turnbridge, B., Whittaker, L., (2020), MNRAS, 495, 1706

***SuperCLASS - III. Weak Lensing from Radio and Optical Observations in Data Release 1***

Harrison, I., Brown, M.L., Turnbridge, B., Thomas, D.B., Hillier, T., Thomson, A.P., Whittaker, L., Abdalla, F.B., Battye, R.A., Bonaldi, A., Camera, S., Casey, C.M., Demetroullas, C., Hales, C.A., Jackson, N.J., Kay, S.T., **Manning, S.M.**, Peters, A., Riseley, C.J., Watson, R.A., (2020), MNRAS, 495, 1737

***Physical Characterization of an Unlensed Dusty Star-Forming Galaxy at  $Z=5.85$***

Casey, C.M., Zavala, J.A., Aravena, M., Béthermin, M., Caputi, K., Champagne, J.B., Clements, D.L., Da Cunha, E., Drew, P., Finkelstein, S.L., Hayward, C.C., Kartaltepe, J.S., Knudsen, K., Koekemoer, A.M., Magdis, G.E., Man, A., **Manning, S.M.**, Scoville, N.Z., Sheth, K., Spilker, J., Staguhn, J., Talia, M., Taniguchi, Y., Toft, S., Treister, E., Yun, M., (2019), ApJ, 887, 1

***Massive Cluster Formation and Destruction in Luminous Infrared Galaxies in GOALS***

Linden, S.T., Evans, A.S., Rich, J., Larson, K.L., Armus, L., Díaz-Santos, T., Privon, G.C., Howell, J., Inami, H., Kim, D.-C., Chien, L.-H., Vavilkin, T., Mazzarella, J.M., Modica, F., Surace, J.A., **Manning, S.M.**, Abdullah, A., Blake, A., Yarber, A., Lambert, T., (2017), ApJ, 843, 2

**Posters**

*Lighting Up the Dark: Understanding the Hidden Nature of NIR-dark Galaxies, Mapping the Invisible Universe*, Lorentz Center Workshop, Netherlands (2022)

*Radio Morphologies of Dust Obscured Starbursts in the SuperCLASS Field*, IAU Symposium 352, Portugal (2019)

*Radio Morphologies of Dust Obscured Starbursts in the SuperCLASS Field*, AAS 231 (2019)

*Probing the Magnetic Fields in the Environment of MgII Absorbers*, AAS 225 (2015)

*Age-Dating Optically Visible Star Clusters in Galaxy Merger NGC 5257/5258*, AAS 221 (2013)