SAM EDWARD CUTLER

CONTACT INFORMATION

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EDUCATION

Ph.D. in Astronomy, University of Massachusetts Amherst (Expected)
GPA: 3.958 / 4.0
Advisors: Kate Whitaker and Mauro Giavalisco

B.S. in Physics & Mathematics, University of Connecticut (May 2019)
GPA: 3.967 / 4.0
Physics GPA: 4.0 / 4.0
Minor: Astrophysics
Honors Program, Thesis: "Examining High Redshift Rotation Curves and Dark Matter Profiles Outside the Local Universe"

POSITIONS

Graduate Research Assistant, Univ. of Massachusetts Amherst 2019–Present
DAWN-IRES Graduate Researcher, Cosmic Dawn Center Summer 2022
Undergraduate Research Assistant, Univ. of Connecticut 2016–2019
SURF Intern, Dark Cosmology Center Summer 2017

SKILLS

Data Handling:
Photometry: aperture photometry (SourceExtractor/SEP, AperPy, Photutils), PSF matching (empirical PSF generation, Grizli, shapelets, PyPHER), SED fitting (Prospector, Eazy)
Morphology: profile fitting (GALFIT, statmorph)

Code:
Python: numpy, matplotlib, scipy, astropy (expert)

TEACHING

Graduate Researcher, Cosmic Dawn Center
DAWN-IRES Career Skills Seminars Summer 2022
Undergraduate seminars

Teaching Assistant, UMass Amherst
Writing About Astronomy Spring 2021
Undergraduate course for astronomy majors
The Solar System Fall 2020-Spring 2021
Undergraduate course with lab component for non-majors

Student Supervision
High School: Avery Minter
Undergraduate: Leonardo Drake (UMass Amherst)

OUTREACH

UMass Astronomy CORE: *Helped create the UMass Astronomy Committee on Outreach and Research Engagement with other graduate students, with the goal of centralizing current programs and creating new programs designed to address the "leaky pipeline" and encourage interest in astronomy.*
SPARK Camp: *Held stargazing sessions and promoted STEM careers for SPARK, a youth camp for girls interested in STEM majors, in Summer 2018 and 2019.*

HONORS & AWARDS

MA Space Grant Grad. Research Fellowship, NASA/MASGC	2021
Best Undergraduate Poster, Univ. of Connecticut	2018
Babbidge Scholar, Univ. of Connecticut	2016, 2018
CT Space Grant Undergrad. Research Fellowship, NASA/CTSGC	2018
Michael Cantara Undergrad. Research Award, Univ. of Connecticut	2017
New England Scholar, Univ. of Connecticut	2017

PRESENTATIONS AND TALKS

AAS 241 Parallel Session, Seattle, WA, USA, contributed talk. (1/2021)
"Measuring Star-Formation Histories at $z \sim 2$ with a Semi-Resolved Approach"

COSMOS Collaboration Meeting, Paris, FR, contributed talk. (7/2022)
"Galaxy Structural Properties and Star-Formation Histories with 3D-DASH"

DAWN Cake Talk, Copenhagen, DK, invited talk. (6/2022)
"The Resolved Star-Formation Histories of $z \sim 2$ Galaxies"

Second Year Presentation, Amherst, MA, USA, invited talk. (9/2021)
"The Differential Assembly of the Centers and Outskirts of Main-Sequence Galaxies at $z \sim 2.3$"

DAWN Cake Talk, Virtual, invited talk. (2/2021)
"Diagnosing DASH: The COSMOS-DASH Morphological Catalog and Insights on the Low-Mass Size-Mass Relation"

AAS 237 Poster Session, Virtual, poster. (1/2021)
"Diagnosing DASH: A Morphological Catalog for the COSMOS-DASH Survey"

First Year Presentation, Amherst, MA, USA, invited talk. (9/2020)
"Diagnosing DASH: The COSMOS-DASH Morphological Catalog and Insights on the Low-Mass Size-Mass Relation"

UConn Physics Poster Session, Storrs, CT, USA, poster. (4/2019)
"Examining High Redshift Rotation Curves and Dark Matter Profiles Outside the Local Universe"

Keene Astronomy Lecture, Keene, NH, USA, public lecture. (3/2018)
"Dark Matter: Seeing the Unseeable"

AAS 231 Poster Session, National Harbor, MD, USA, poster. (1/2018)
"Examining High Redshift Rotation Curves and Dark Matter Profiles Outside the Local Universe"

UConn Astronomy Seminar, Storrs, CT, USA, invited talk. (10/2017)
"Examining High Redshift Rotation Curves and Dark Matter Profiles Outside the Local Universe"

MEDIA & PRESS RELEASES

- *News Article*, **How UMass Astronomers Helped the Hubble Space Telescope Take the Widest Photo of the Universe Ever** (6/2022)

PUBLICATIONS (ADS LIBRARY)
TOTAL: 6
1ST AUTHOR: 2

1. Weaver, J., **Cutler, S. E.**, et al., 2023, *The Astrophysical Journal Supplements*, submitted, "The UNCOVER Survey: A first-look HST+JWST catalog of 50,000 galaxies near Abell 2744 and beyond".
2. Bezanson, R.,..., **Cutler, S. E.**, et al., 2022, *The Astrophysical Journal*, submitted, "The JWST UNCOVER Treasury survey: Ultradeep NIRSpec and NIRCam ObserVations before the Epoch of Reionization".
3. Park, M.,..., **Cutler, S. E.**, et al., 2022, *The Astrophysical Journal*, submitted, "Rapid Quenching of Galaxies at Cosmic Noon".
4. **Cutler, S. E.**, et al., 2022, *The Astrophysical Journal*, submitted, "The Differential Assembly of the Centers and Outskirts of Main-Sequence Galaxies at $z \sim 2.3$".
5. Mowla, L., **Cutler, S. E.**, et al., 2022, *The Astrophysical Journal*, 933, 129M, "3D-DASH: The Widest Near-Infrared Hubble Space Telescope Survey".
6. **Cutler, S. E.**, et al., 2022, *The Astrophysical Journal*, 925, 34C, "Diagnosing DASH: A Catalog of Structural Properties for the COSMOS-DASH Survey".