# Rebecca C. Levy

### STScI Postdoctoral Fellow

Space Telescope Science Institute 3700 San Martin Dr. Baltimore, MD 21218 Citizenship: USA rlevy@stsci.edu rlevy.astro@gmail.com https://rclevy.github.io (832) 330-8420

### Research Interests \_\_\_\_\_

#### I investigate

- The role of stellar feedback in shaping the interstellar medium and galaxy evolution
- Young, embedded star clusters, especially in the centers of nearby galaxies
- Starburst galaxies, especially NGC 253 and M 82
- Multiphase gas kinematics and dynamics in nearby galaxies

using multiwavelength photometric and spectroscopic data from ground- and space-based observatories (e.g., radio; (sub-)millimeter interferometric; near-, mid-, far-infrared; optical IFU)

## Experience \_\_\_\_\_

Sept 2024 – present	STScI Postdoctoral Fellow Space Telescope Science Institute, Baltimore, MD, USA 50% independent research / 50% functional work (JWST Science Policies Group)
Oct 2021 – Sept 2024	NSF Astronomy & Astrophysics Postdoctoral Fellow University of Arizona, Dept. of Astronomy/Steward Observatory, Tucson, AZ, USA 90% independent research / 10% outreach (U. Arizona Women in Science and Engineering)

#### Education \_\_\_\_\_

Dec 2021	Ph.D. in Astronomy University of Maryland, College Park, MD, USA  "Investigating Star Formation Feedback through Gas Kinematics in Nearby Galaxies" Advisor: Prof. Alberto Bolatto
Dec 2017	M.S. in Astronomy University of Maryland, College Park, MD, USA
May 2015	B.S. in Astronomy, B.S. in Physics University of Arizona, Tucson, AZ, USA Cum Laude with Honors

## Publication Summary \_\_\_\_\_

Total: 50 papers — 1501 citations — h-index = 22 First-authored & supervised: 9 papers — 237 citations A full publication list can be found at the end.

#### First-Authored & Supervised Publications

- [9] "M81 y sus Primas con PRIMA: Spectroscopic Mapping of the M81 Group with FIRESS" Levy, R. C., et al. 2025, PRIMA General Observer Science Book, Vol. 2, in press.
- [8] "JWST Observations of Starbursts: Massive Star Clusters in the Central Starburst of M 82" Levy, R. C., et al. 2024, ApJL, 973, 55.
- [7] "Milky Way and Nearby Galaxies Science with the SALTUS Space Observatory" Levy, R. C., et al. 2024, JATIS, 10, 4, 042304.
- [6] "[CII] Spectral Mapping of the Galactic Wind and Starbursting Disk of M 82 with SOFIA" Levy, R. C., et al. 2023, ApJ, 958, 109.
- [5] "The Morpho-Kinematic Architecture of Super Star Clusters in the Center of NGC 253" Levy, R. C., et al. 2022, ApJ, 935, 19.
- [4] "Cuspy Dark Matter Density Profiles in Massive Dwarf Galaxies" Cooke, L. H., Levy, R. C., et al. 2022, MNRAS, 512, 1012.
- [3] "Outflows from Super Star Clusters in the Central Starburst of NGC 253" Levy, R. C., et al. 2021, ApJ, 912, 4.
- [2] "The EDGE-CALIFA Survey: Evidence for Pervasive Extraplanar Diffuse Ionized Gas in Nearby Edge-On Galaxies"
   Levy, R. C., et al. 2019, ApJ, 882, 84.
- [1] "The EDGE-CALIFA Survey: Molecular and Ionized Gas Kinematics in Nearby Galaxies" Levy, R. C., et al. 2018, ApJ, 860, 92.

## Honors & Awards \_\_\_\_\_

2021	IAU PhD Prize — Honorable Mention	IAU, Div. H:
	(Only a single winner and honorable mention were awarded in this division.)	Interstellar Matter and
		Local Universe
2020	Andrew S. Wilson Prize for Excellence in Research	U. Maryland,
		Dept. of Astronomy
2020	Philip E. Angerhofer Outstanding Teaching Assistant Award	U. Maryland,
		Dept. of Astronomy
2020	Prize for Excellence in Mentoring	U. Maryland,
		Dept. of Astronomy
2018 - 2019	Outstanding Research Assistant Award	U. Maryland,
		Graduate School
2016	Graduate Research Fellowship Program — Honorable Mention	NSF

### Grants Awarded

2025	Collaborator	NASA —	"A Next-Generation Crowded-Field Stellar
		ROMAN24	Photometry Tool for Roman"
2022	\$44,473	NSF	"21st Annual Symposium of the NSF Astronomy and Astrophysics Postdoctoral Fellows"
2021	\$310,000	NSF AAPF	"A Multiscale View of the Effects of Stellar Feedback in the Local Universe"

2019	\$35,000	NRAO	ALMA Student Observing Support
2019	\$90,000	SOFIA/USRA/ NASA	"The GREAT Cigar: Mapping [CII] in the Disk and Outflow of M82"
2019	\$600	U. Maryland	The Jacob K. Goldhaber Travel Grant
2017	\$600	Grad. School	
2019	\$225	U. Maryland	International Conference Student Support Award
2017	\$262	Grad. School	

## Scientific Presentations

Invited	Reviews	and	Colloquia	
---------	---------	-----	-----------	--

Feb 2026 (sched.)	Rochester Inst. Tech./U. Rochester Astronomy Colloquium	Rochester, NY
Oct 2025 (sched.)	U. Connecticut Astronomy Seminar	Mansfield, CT
Feb 2025	Texas A&M U. Astronomy Colloquium	College Station, TX
Oct 2023	Instituto de Astrofísica de Andalucía Colloquium (Recorded)	(Virtual)
Oct 2023	Radboud U. Astronomy Colloquium	(Virtual)
Apr 2023	The Galactic Centre Workshop — Review Talk	Granada, Spain
Apr 2023	Hamburg Observatory Colloquium	(Virtual)
Apr 2023	Michigan State U. Astronomy Seminar	(Virtual)
Oct 2022	U. Kansas Physics and Astronomy Department Colloquium	Lawrence, KS
Oct 2019	The Warm Ionized Medium Workshop — Review Talk	Green Bank, WV

# Invited Talks \_\_\_\_\_\_

Oct 2025 (sched.)	Lorentz Center Workshop: Galactic Centers as Tracers of	Leiden, Netherlands
	Galaxy Evolution	
$\mathrm{Aug}\ 2025$	Ascona Meeting on Cosmic ISM and Stellar Populations	Ascona, Switzerland
Oct 2024	Center for Astrophysics (CfA) Seminar	Cambridge, MA
$\mathrm{Apr}\ 2024$	U. Wisconsin, Madison Monday Science Seminar	(Virtual)
Dec 2023	ALMA at Ten Years: Past, Present and Future	Puerto Varas, Chile
July 2021	The Grande Cascade	(Virtual)
May 2021	Cornell Galaxy Lunch Seminar	(Virtual)
Feb 2021	Princeton Star Formation/ISM Rendezvous	(Virtual)
Nov 2020	Ringberg Workshop Virtual Seminar: "How does small-scale	(Virtual)
	physics drive galaxy evolution?"	
Oct 2020	Center for Cosmology & AstroParticle Physics Seminar	(Virtual)

# Contributed Talks (past 5 years)

May 2025	Inter+Stellar: Harnessing the Intersection Between Stars and	Baltimore, MD
	the Interstellar Medium	
Nov 2024	Follow the Monarchs: A Journey to Explore the Cosmos at	Morelia, Mexico
	(Sub)milliarcsecond Scales with the ngVLA (Recorded)	
May 2024	STScI Low Density Universe Meeting	Baltimore, MD
Jan 2024	The 243st Meeting of the American Astronomical Society	New Orleans, LA
Jan 2024	2024 NSF-AST Fellows Symposium	New Orleans, LA
Jan 2023	The 241 <sup>st</sup> Meeting of the American Astronomical Society	Seattle, WA
Sept 2022	MPIA Galaxy Coffee Seminar	Heidelberg, Germany
Sept 2022	Puzzles of the Galactic Centre	Heidelberg, Germany
Aug 2022	U. Virginia/ NRAO Astronomy Lunch Talk Series	(Virtual)
July 2022	A Holistic View of Stellar Feedback and Galaxy Evolution	Ascona, Switzerland

June 2022	The 240 <sup>th</sup> Meeting of the American Astronomical Society	Pasadena, CA
May 2022	Ringberg Virtual Seminar Series	(Virtual)
Apr 2022	Steward Observatory Journal Club	Tucson, AZ
Apr 2022	NOIRLab FLASH Talk	(Virtual)
Mar 2022	Meeting for ALMA Young Astronomers	(Virtual)
Jan 2022	2022 NSF AAPF Fellows Symposium	(Virtual)
Oct 2021	Caltech Astronomy Tea Talk	(Virtual)
Jan 2021	The 237 <sup>th</sup> Meeting of the American Astronomical Society	(Virtual)
Nov 2020	U. Virginia/ NRAO Astronomy Lunch Talk Series	(Virtual)
Nov 2020	Steward Observatory/ NOAO Galaxy Group Seminar	(Virtual)
Nov 2020	U. Texas at Austin ISM Seminar	(Virtual)
Oct 2020	UCLA Astronomy & Physics Lunch Talk Series	(Virtual)
Oct 2020	STScI Galaxy Journal Club	(Virtual)
Sept 2020	Submillimeter Array (SMA) Seminar	(Virtual)

## Press, Media, & Other Coverage \_\_\_\_\_

June 2025	NIRCam and MIRI images of M 82 from JWST program #1701 featured as the
	NASA/ ESA/CSA JWST Picture of the Month: "A starburst shines in the infrared."
Apr 2024	Quoted in NASA Press Release "NASA's Webb Probes an Extreme Starburst Galaxy."
	(Cross-posted by ESA, Webb Telescope, Space.com, U. Arizona, U. Maryland, MPIA, etc.)
$\mathrm{Aug}\ 2022$	Results from Levy et al. 2022, ApJ cited in the Wikipedia page for NGC 253.
May 2021	Results from Levy et al. 2021, ApJ featured in the NRAO eNews Vol. 14, Issue 5.

# Students Mentored \_\_\_\_\_

Melnick Nebart	Summer 2025	STScI Space Astronomy Summer Program (SASP) <b>Publication:</b> Nebart & Levy, 2025 in prep.  Undergrad at Columbia U.
Keaton Donaghue	Oct 2022 –	Co-mentor <b>Publication:</b> Donaghue, Levy, et al. 2025 in prep.  Undergrad at U. Kansas & NSF GRFP grad student at U. Maryland
Lauren Cooke	May 2020, Summer 2019	Publication: Cooke, Levy, et al. 2022, MNRAS High school senior & undergrad at Harvard U. (Now: AI Data Analyst)
Brandon Davey	Jan 2020	GRAD-MAP Winter Workshop <b>Publication:</b> Cooke, Levy, Davey, et al. 2022, MNRAS  Undergrad of U. of South Florida (Now: Software Engineer)
Nathnael Feleke	Summer 2019, Jan 2019	GRAD-MAP Summer Scholars Program & Winter Workshop Undergrad at Montgomery College, Takoma Park
Aurora Cid	Jan 2018	GRAD-MAP Winter Workshop Undergrad at CUNY College of Staten Island
Natalia Ramírez Vega	Jan 2017	GRAD-MAP Winter Workshop Undergrad at U. Costa Rica & Fidélitas U. (Now: Senior Data Engineer)

### Professional Service & Memberships \_\_\_\_\_

### Referee for articles published in

Nature Astronomy, AJ, ApJ, A&A, MNRAS

#### Working groups led \_

Feb 2025 – present PRIMA "Cosmic Ecosystems" science working group

Apr 2022 – Oct 2024 SALTUS "Milky Way & Nearby Galaxies" science working group

#### Conferences organized \_

May 2024 "Spatio-spectral Modeling of Interferometric Data: Preparing for the SOC

Wideband Era"

Jan 2023 "2023 NSF AAPF Symposium" Co-organizer

Oct 2019 "The Warm Ionized Medium Workshop" SOC

#### Seminars organized

2022-2023 Steward Obs. Science Coffee arXiv discussion 2019-2020 UMD Dept. of Astronomy weekly arXiv discussion

#### Review panels \_\_\_

Mar 2024 NASA Review Panel — Executive Secretary

Cycle 31 HST TAC

Mar 2023 NSF Review Panel

#### Committee service \_

Spring 2020 UMD Dept. of Astronomy faculty search committee

2017 – 2020 UMD Dept. of Astronomy Graduate Student Council rep.

#### Other service \_\_\_

(Carried out as part of STScI Fellowship functional duties.)

Cycle 5 Co-lead editor of the JWST Call for Proposals

Cycles 4, 5 JWST TAC Panel Manager

#### Collaboration membership \_\_\_\_\_

Sept 2024 STScI ISM\* research group

Apr 2023 ACES/JACKS (ALMA CMZ Exploration Survey/JVLA Ammonia CMZ K-band Survey)

Dec 2022 PHANGS (Physics at High Resolution in Nearby GalaxieS)
Aug 2015 EDGE (Extragalactic Database for Galaxy Evolution)

#### Professional society membership \_

International Astronomical Union (IAU) — Junior member American Astronomical Society (AAS) — Full member

Approve	d Observing Programs	
ALMA (At PI of 3 progr	acama Large Millimeter/submillimeter Array)rams:	
-	Unveiling Embedded Star Formation and Feedback in the Prototypical Merger-Star Complete Molecular Gas Coverage in Nearby Low-Luminosity AGN"	tarburst VV 114"
	Ionized Gas, Radiation Field, Masses, and Dust Temperature in Forming Massive $n$ the NGC253 Starburst"	e Star Clusters
Co-I on a tot	al of 32 programs in Cycles 12 ( $N=6$ incl. 1 large), 11 (6), 10 (9), 9 (3), 8 (3), 7 (2)	2), 6 (2), 4 (1).
I am certified	to remotely operate the GBT. tal of 3 programs in Semesters 2022b (1), 2021b (1 large), 2021a (1).	
	le Space Telescope)tal of 2 programs in Cycles 32 (1), 31 (1 treasury).	
	Northern Extended Millimeter Array)tal of 2 programs in Semesters 2022a (1), 2021b (1).	
Co-I on a tot Cycle 1 ".	nes Webb Space Telescope) tal of 6 programs in Cycles 3 (1), 2 (3 incl. 1 treasury), 1 (2), including:  Dissecting the Prototypical Starbursts NGC 253 and M 82 and Their Cool Galacted the technical planning and justification for this proposal.	ctic Winds"
	e Millimeter Telescope)tal of 1 program in Semester 2021-S1 (1).	
	tal of 3 programs in Semesters 2025A (1), 2024B (1), 2018B (1).	
PI of 1 progr		
Cycles 8/7		
Co-I on a tot	tal of 5 programs in Cycles 9 (1), 8 (2), 7 (2).	
	Large Array) tal of 8 programs in Semesters 2025a (1), 2024b (1), 2022b (2), 2022a (2), 2021b (2)	(1), 2019b (1).
Teaching	Experience	
Apr 2023	Guest Lecturer: "Translational Science Communication" ACBS 493/ECOL 499/GEOS 393/NSCS 393: The Bio/Diversity Project Internship Program	U. Arizona
Spring 2020	Teaching and Lab Assistant ASTR 121: Introductory Astrophysics II — Stars & Beyond	U. Maryland
Fall 2019	Teaching Assistant ASTR 120: Introductory Astrophysics I — Solar System	U. Maryland

Sept 2018	Guest Lecturer: "LaTeX Examples with Overleaf" ASTR 695: First Year Seminar	U. Maryland
Spring 2014	Preceptor PHYS 141: Introductory Mechanics	U. Arizona
Spring 2013	Undergraduate Teaching Coordinator MATH 100/100AX: Prep. for College Algebra	U. Arizona
Fall 2012	Undergraduate Teaching Coordinator MATH 100/100AX: Prep. for College Algebra	U. Arizona
Spring 2012	Lead Undergraduate Teaching Assistant MATH 100/100AX: Prep. for College Algebra	U. Arizona
Fall 2011	Undergraduate Teaching Assistant MATH 100/100AX: Prep. for College Algebra	U. Arizona

### Outreach Experience \_\_\_\_\_

### Imagine Your STEM Future (IYSF) \_

Women in Science and Engineering (WISE), U. Arizona

Aug 2023 – Sept 2024 • Developed and implemented a hands-on astronomy lesson and activity for the WISE IYSF program. Materials for my curriculum about the phases of the Moon can be found in this Google Drive repository.

Mar 2024, Feb 2023

• Guest lecturer on my career path for students in IYSF program.

#### Public Lectures \_

Dec 2022

• Tucson Amateur Astronomy Association Lecture: "A JWST View of Starburst Galaxies: Sweet Data Coming Soon!"

Nov 2022

• Steward Observatory Public Evening Lecture Series: "A JWST View of Starburst Galaxies: Sweet Data Coming Soon!"

#### Public Events \_

Engaged with the public through astronomy/physics/optics demonstrations and activities.

Apr 2016 - 2019

Apr 2016

March 2014, 2015

June 2013 - 2015

- Maryland Day, U. Maryland's annual open house
- U.S. Science and Engineering Festival
- Tucson Festival of Books (part of NOAO EPO, see below)
- Arizona-Sonora Desert Museum Cool Summer Astronomy Night (2014, 2015 part of NOAO EPO, see below)

#### GRAD-MAP \_

## (Graduate Resources Advancing Diversity with Maryland Astronomy and Physics)

Dept. of Astronomy, U. Maryland

2016 - 2020

- Research mentor for four students over four years during the week-long Winter Workshop.
- Co-mentor for one student during the 10-week Summer Scholars program.
- Helped plan Winter Workshops and Summer Scholars programs.
- Developed and led professional development sessions during the Winter Workshops and Summer Scholars programs.
- Co-organized and led two weekend trips to the Green Bank Observatory.
- Helped organize and run the annual Open House, including helping to develop the inaugural Open House.

• Attended Collaborative Seminar Series at local institutions.

#### Education and Public Outreach (EPO) Department \_

National Optical Astronomy Observatory (NOAO) (Note: NOAO is now NOIRLab)

- Aug 2013 July 2015 Key developer of all aspects of the United Nations-sanctioned "International Year of Light 2015" Quality Lighting Teaching Kit, including activity creation and development, materials sourcing, instructional guide and media writing, state and national educational standards verification, and classroom testing. These kits were disseminated internationally and were available for retail sale.
  - Interacted extensively with the public, K-12 students, K-12 teachers, and members of the Tohono O'odham Nation.
  - Developed, planned, prepared, led, and/or supported 1-2 outreach activities per week (on average) focused on astronomy and/or dark skies education.
  - Developed, planned, prepared, led, and/or supported local, national, and international teacher training workshops and outreach events (e.g., at AAS, AGU, and IAU meetings).
  - Supported the Globe at Night citizen-science campaign, including website design, social media, development of materials, newsletter writing, podcast writing and recording, and facilitation of material translations.
  - Hired, trained, mentored, and evaluated other student employees.

June 2016, 2015

• Guest lecturer and support staff for two Colors of Nature Summer Academies in Tucson, AZ. This NSF-funded educational research study investigated the development of middle-school girls' identities as scientists as they explored the intersections of art and science (STEAM) in a two-week program.

### Full Publication List

Total: 50 papers — 1501 citations — h-index = 22Links to current publications in ADS, SciX, and ORCID.

- [50] "M81 y sus Primas con PRIMA: Spectroscopic Mapping of the M81 Group with FIRESS" Levy, R. C., Koch, E., Cronin, S. A., Smercina, A., Melso, N. 2025, PRIMA General Observer Science Book, Vol. 2, in press.
- [49] "Cold dark gas in Cygnus X: The first large-scale mapping of low-frequency carbon recombination lines" Emig, K. L., Salas, P., Anderson, L. D., Anish Roshi, D., Bonne, L., Bolatto, A. D., Grenier, I. A., Levy, R. C., Linville, D. J., Luisi, M., Owens, M. R., Poojapriyatharsheni, J., Schneider, N., Tibaldo, L., Tielens, A. G. G. M., Walch, S. K., White, G. J. 2025, ApJ, in press, doi: 10.48550/arXiv.2501. 13838.
- [48] "Physical Conditions of the Ionized Superwind in NGC 253 with VLT/MUSE" Cronin, S. A., Bolatto, A. D., Congiu, E., Donaghue, K., Kreckel, K., Leroy, A. K., Levy, R. C., Veilleux, S., Walter, F., Nolasco, L. 2025, ApJ, 987, 92, doi: 10.3847/1538-4357/add738.
- [47] "JWST observations of starbursts: cold clouds and plumes launching in the M 82 outflow" Fisher, D. B., Bolatto, A. D., Chisholm, J., Fielding, D., Levy, R. C., Tarantino, E., Boyer, M. L., Cronin, S. A., Lopez, L. A., Smith, J. D., Berg, D. A., Lopez, S., Veilleux, S., van der Werf, P. P., Böker, T., Boogaard, L. A., Lenkić, L., Glover, S. C. O., Villanueva, V., Mayya, D., Lai, T. S. Y., Dale, D. A., Emig, K. L., Walter, F., Relaño, M., De Looze, I., Mills, E. A. C., Leroy, A. K., Meier, D. S., Herrera-Camus, R., Klessen, R. S. 2025, MNRAS, 538, 3068, doi: 10.1093/mnras/staf363.
- [46] "Tracing the Earliest Stages of Star and Cluster Formation in 19 Nearby Galaxies with PHANGS-JWST and HST: Compact 3.3 µm Polycyclic Aromatic Hydrocarbon Emitters and Their Relation to

- the Optical Census of Star Clusters"
- Rodríguez, M. J., Lee, J. C., Indebetouw, R., Whitmore, B. C., Maschmann, D., Williams, T. G., Chandar, R., Barnes, A. T., Gnedin, O. Y., Sandstrom, K. M., Rosolowsky, E., Leroy, A. K., Thilker, D. A., Kim, H., Sun, J., Klessen, R. S., Groves, B., Wofford, A., Boquien, M., Dale, D. A., Úbeda, L., Larson, K. L., Grasha, K., Johnson, K. E., Levy, R. C., Bigiel, F., Hassani, H., Sarbadhicary, S. K. 2025, ApJ, 983, 137, doi: 10.3847/1538-4357/adbb69.
- [45] "JWST Observations of Starbursts: Relations between PAH features and CO clouds in the starburst galaxy M82"
  Villanueva, V., Bolatto, A. D., Herrera-Camus, R., Leroy, A., Fisher, D. B., Levy, R. C., Böker, T., Boogaard, L., Cronin, S. A., Dale, D. A., Emig, K., De Looze, I., Donnelly, G. P., Lai, T. S. Y., Lenkic, L., Lopez, L. A., Lopez, S., Meier, D. S., Ott, J., Relano, M., Smith, J. D., Tarantino, E., Veilleux, S., Walter, F., van der Werf, P. 2025, A&A, 695, A202, doi: 10.1051/0004-6361/202553891.
- [44] "Central versus Global Quenching Traced by the APEX-CALIFA Survey"
  Barrera-Ballesteros, J. K., Cruz-González, I., Colombo, D., Sánchez, S. F., Levy, R. C., Villanueva, V., Wong, T., Bolatto, A., Alonso Hernández, D. 2025, ApJ, 978, 23, doi: 10.3847/1538-4357/ad85d1.
- [43] "Single Aperture Large Telescope for Universe Studies (SALTUS): Science Overview"
  Chin, G., Anderson, C. M., Bergner, J., Biver, N., Bjoraker, G. L., Cavalie, T., DiSanti, M., Gao, J.-R., Hartogh, P., Harding, L. K., Hu, Q., Kim, D., Kulesa, C., de Lange, G., Leisawitz, D. T., Levy, R. C., Lichtenberger, A., Marrone, D. P., Najita, J., Newswander, T., Rieke, G. H., Rigopoulou, D., Roefsema, P., Roth, N. X., Schwarz, K., Shirley, Y., Spilker, J., Stark, A. A., van der Tak, F., Takashima, Y., Tielens, A., Willner, D. J., Wollack, E. J., Yates, S., Young, E., Walker, C. K. 2024, JATIS, 10, 042310, doi: 10.1117/1.JATIS.10.4.042310.
- [42] "Disk Turbulence and Star Formation Regulation in High-z Main-sequence Analog Galaxies" Lenkić, L., Fisher, D. B., Bolatto, A. D., Teuben, P. J., Levy, R. C., Sun, J., Herrera-Camus, R., Glazebrook, K., Obreschkow, D., Abraham, R. 2024, ApJ, 976, 88, doi: 10.3847/1538-4357/ad758c.
- [41] "JWST MIRI and NIRCam observations of NGC 891 and its circumgalactic medium"
  Chastenet, J., De Looze, I., Relaño, M., Dale, D. A., Williams, T. G., Bianchi, S., Xilouris, E. M., Baes, M., Bolatto, A. D., Boyer, M. L., Casasola, V., Clark, C. J. R., Fraternali, F., Fritz, J., Galliano, F., Glover, S. C. O., Gordon, K. D., Hirashita, H., Kennicutt, R., Nagamine, K., Kirchschlager, F., Klessen, R. S., Koch, E. W., Levy, R. C., McCallum, L., Madden, S. C., McLeod, A. F., Meidt, S. E., Mosenkov, A. V., Richie, H. M., Saintonge, A., Sandstrom, K. M., Schneider, E. E., Sivkova, E. E., Smith, J. D. T., Smith, M. W. L., van der Wel, A., Walch, S., Walter, F., Wood, K. 2024, A&A, 690, A348, doi: 10.1051/0004-6361/202451033.
- [40] "Neutral atomic and molecular gas dynamics in the nearby spiral galaxies NGC 1512, NGC 4535, and NGC 7496"
  Laudage, S., Eibensteiner, C., Bigiel, F., Leroy, A. K., Meidt, S., Schinnerer, E., de Blok, W. J. G., Querejeta, M., Stuber, S., Colombo, D., Rosolowsky, E., Pisano, D. J., Utomo, D., Levy, R. C., Klessen, R., Cao, Y., Koch, E. W., Kurapati, S., Sanchez-Blazquez, P., Neumann, J., Neumann, L., Pan, H.-A., Williams, T. G. 2024, A&A, 690, A169, doi: 10.1051/0004-6361/202450265.
- [39] "JWST Observations of Starbursts: Massive Star Clusters in the Central Starburst of M82"
  Levy, R. C., Bolatto, A. D., Mayya, D., Cuevas-Otahola, B., Tarantino, E., Boyer, M. L., Boogaard, L. A., Böker, T., Cronin, S. A., Dale, D. A., Donaghue, K., Emig, K. L., Fisher, D. B., Glover, S. C. O., Herrera-Camus, R., Jiménez-Donaire, M. J., Klessen, R. S., Lenkić, L., Leroy, A. K., De Looze, I., Meier, D. S., Mills, E. A. C., Ott, J., Relaño, M., Veilleux, S., Villanueva, V., Walter, F., van der Werf, P. P. 2024, ApJL, 973, L55, doi: 10.3847/2041-8213/ad7af3.
- [38] "Milky Way and Nearby Galaxies Science with the SALTUS Space Observatory"

- Levy, R. C., Tielens, A., Spilker, J., Marrone, D. P., Narayanan, D., Walker, C. K. 2024, JATIS, 10, 042304, doi: 10.1117/1.JATIS.10.4.042304.
- [37] "High-Redshift Extragalactic Science with the Single Aperture Large Telescope for Universe Studies (SALTUS) Space Observatory"
  Spilker, J., Levy, R. C., Marrone, D., Alberts, S., Chapman, S. C., Dickinson, M., Egami, E., Endsley, R., Narayanan, D., Rieke, G., Stark, A. A., Tielens, A., Walker, C. K. 2024, JATIS, 10, 042305, doi: 10.1117/1.JATIS.10.4.042305.
- [36] "PHANGS-HST Catalogs for ~100,000 Star Clusters and Compact Associations in 38 Galaxies. I. Observed Properties"
  Maschmann, D., Lee, J. C., Thilker, D. A., Whitmore, B. C., Deger, S., Boquien, M., Chandar, R., Dale, D. A., Wofford, A., Hannon, S., Larson, K. L., Leroy, A. K., Schinnerer, E., Rosolowsky, E., Úbeda, L., Barnes, A. T., Emsellem, E., Grasha, K., Groves, B., Indebetouw, R., Kim, H., Klessen, R. S., Kreckel, K., Levy, R. C., Pinna, F., Rodríguez, M. J., Tian, Q., Williams, T. G. 2024, ApJS, 273, 14, doi: 10.3847/1538-4365/ad3cd3.
- [35] "Hidden Gems on a Ring: Infant Massive Clusters and Their Formation Timeline Unveiled by ALMA, HST, and JWST in NGC 3351"
  Sun, J., He, H., Batschkun, K., Levy, R. C., Emig, K., Rodríguez, M. J., Hassani, H., Leroy, A. K., Schinnerer, E., Ostriker, E. C., Wilson, C. D., Bolatto, A. D., Mills, E. A. C., Rosolowsky, E., Lee, J. C., Dale, D. A., Larson, K. L., Thilker, D. A., Ubeda, L., Whitmore, B. C., Williams, T. G., Barnes, A. T., Bigiel, F., Chevance, M., Glover, S. C. O., Grasha, K., Groves, B., Henshaw, J. D., Indebetouw, R., Jiménez-Donaire, M. J., Klessen, R. S., Koch, E. W., Liu, D., Mathur, S., Meidt, S., Menon, S. H., Neumann, J., Pinna, F., Querejeta, M., Sormani, M. C., Tress, R. G. 2024, ApJ, 967, 133, doi: 10.3847/1538-4357/ad3de6.
- [34] "JWST Observations of Starbursts: Polycyclic Aromatic Hydrocarbon Emission at the Base of the M82 Galactic Wind"
  Bolatto, A. D., Levy, R. C., Tarantino, E., Boyer, M. L., Fisher, D. B., Cronin, S. A., Leroy, A. K., Klessen, R. S., Smith, J. D., Berg, D. A., Böker, T., Boogaard, L. A., Ostriker, E. C., Thompson, T. A., Ott, J., Lenkić, L., Lopez, L. A., Dale, D. A., Veilleux, S., van der Werf, P. P., Glover, S. C. O., Sandstrom, K. M., Skillman, E. D., Chisholm, J., Villanueva, V., Lai, T. S. Y., Lopez, S., Mills, E. A. C., Emig, K. L., Armus, L., Mayya, D., Meier, D. S., De Looze, I., Herrera-Camus, R., Walter, F., Relaño, M., Koziol, H. B., Marvil, J., Jiménez-Donaire, M. J., Martini, P. 2024, ApJ, 967, 63, doi: 10.3847/1538-4357/ad33c8.
- [33] "The EDGE-CALIFA Survey: An Extragalactic Database for Galaxy Evolution Studies"
  Wong, T., Cao, Y., Luo, Y., Bolatto, A. D., Sánchez, S. F., Barrera-Ballesteros, J. K., Blitz, L., Colombo, D., Dannerbauer, H., Green, A., Kalinova, V., Khan, F., Kim, A., Lacerda, E. A. D., Leroy, A. K., Levy, R. C., Lin, X., Luo, Y., Rosolowsky, E. W., Rubio, M., Teuben, P., Utomo, D., Villanueva, V., Vogel, S. N., Wang, X. 2024, ApJS, 271, 35, doi: 10.3847/1538-4365/ad20c9.
- [32] "The EDGE-CALIFA Survey: Molecular Gas and Star Formation Activity across the Green Valley" Villanueva, V., Bolatto, A. D., Vogel, S. N., Wong, T., Leroy, A. K., Sánchez, S. F., Levy, R. C., Rosolowsky, E., Colombo, D., Kalinova, V., Cronin, S., Teuben, P., Rubio, M., Bazzi, Z. 2024, ApJ, 962, 88, doi: 10.3847/1538-4357/ad1387.
- [31] "[CII] Spectral Mapping of the Galactic Wind and Starbursting Disk of M 82 with SOFIA"
  Levy, R. C., Bolatto, A. D., Tarantino, E., Leroy, A. K., Armus, L., Emig, K. L., Herrera-Camus, R., Marrone, D. P., Mills, E., Ricken, O., Stutzki, J., Veilleux, S., Walter, F. 2023, ApJ, 958, 109, doi: 10.3847/1538-4357/acff6e.
- [30] "The EDGE-CALIFA Survey: Spatially Resolved <sup>13</sup> CO(1-0) Observations and Variations in <sup>12</sup> CO(1-0)/<sup>13</sup> CO(1-0) in Nearby Galaxies on Kiloparsec Scales"

Cao, Y., Wong, T., Bolatto, A. D., Leroy, A. K., Rosolowsky, E., Utomo, D., Sánchez, S. F., Barrera-Ballesteros, J. K., Levy, R. C., Colombo, D., Blitz, L., Vogel, S. N., Puschnig, J., Villanueva, V., Rubio, M. 2023, ApJS, 268, 3, doi: 10.3847/1538-4365/acd840.

- [29] "Fuelling the nuclear ring of NGC 1097"

  Sormani, M. C., Barnes, A. T., Sun, J., Stuber, S. K., Schinnerer, E., Emsellem, E., Leroy, A. K., Glover, S. C. O., Henshaw, J. D., Meidt, S. E., Neumann, J., Querejeta, M., Williams, T. G., Bigiel, F., Eibensteiner, C., Fragkoudi, F., Levy, R. C., Grasha, K., Klessen, R. S., Kruijssen, J. M. D., Neumayer, N., Pinna, F., Rosolowsky, E. W., Smith, R. J., Teng, Y.-H., Tress, R. G., Watkins, E. J. 2023, MNRAS, 523, 2918, doi: 10.1093/mnras/stad1554.
- [28] "CO Excitation in High-z Main-sequence Analogues: Resolved CO(4-3)/CO(3-2) Line Ratios in DYNAMO Galaxies"
  Lenkić, L., Bolatto, A. D., Fisher, D. B., Abraham, R., Glazebrook, K., Herrera-Camus, R., Levy, R. C., Obreschkow, D., Volpert, C. G. 2023, ApJ, 945, 9, doi: 10.3847/1538-4357/acb3b2.
- [27] "PHANGS-JWST First Results: A Global and Moderately Resolved View of Mid-infrared and CO Line Emission from Galaxies at the Start of the JWST Era"
  Leroy, A. K., Bolatto, A. D., Sandstrom, K., Rosolowsky, E., Barnes, A. T., Bigiel, F., Boquien, M., den Brok, J. S., Cao, Y., Chastenet, J., Chevance, M., Chiang, I.-D., Chown, R., Colombo, D., Ellison, S. L., Emsellem, E., Grasha, K., Henshaw, J. D., Hughes, A., Klessen, R. S., Koch, E. W., Kim, J., Kreckel, K., Kruijssen, J. M. D., Larson, K. L., Lee, J. C., Levy, R. C., Lin, L., Liu, D., Meidt, S. E., Pety, J., Querejeta, M., Rubio, M., Saito, T., Salim, S., Schinnerer, E., Sormani, M. C., Sun, J., Thilker, D. A., Usero, A., Vogel, S. N., Watkins, E. J., Whitcomb, C. M., Williams, T. G., Wilson, C. D. 2023, ApJL, 944, L10, doi: 10.3847/2041-8213/acab01.
- [26] "PHANGS-JWST First Results: Mid-infrared Emission Traces Both Gas Column Density and Heating at 100 pc Scales"
  Leroy, A. K., Sandstrom, K., Rosolowsky, E., Belfiore, F., Bolatto, A. D., Cao, Y., Koch, E. W., Schinnerer, E., Barnes, A. T., Bešlić, I., Bigiel, F., Blanc, G. A., Chastenet, J., Chen, N. M., Chevance, M., Chown, R., Congiu, E., Dale, D. A., Egorov, O. V., Emsellem, E., Eibensteiner, C., Faesi, C. M., Glover, S. C. O., Grasha, K., Groves, B., Hassani, H., Henshaw, J. D., Hughes, A., Jiménez-Donaire, M. J., Kim, J., Klessen, R. S., Kreckel, K., Kruijssen, J. M. D., Larson, K. L., Lee, J. C., Levy, R. C., Liu, D., Lopez, L. A., Meidt, S. E., Murphy, E. J., Neumann, J., Pessa, I., Pety, J., Saito, T., Sardone, A., Sun, J., Thilker, D. A., Usero, A., Watkins, E. J., Whitcomb, C. M., Williams, T. G. 2023, ApJL, 944, L9, doi: 10.3847/2041-8213/acaf85.
- [25] "The EDGE-CALIFA survey: The role of spiral arms and bars in driving central molecular gas concentrations"
  Yu, S.-Y., Kalinova, V., Colombo, D., Bolatto, A. D., Wong, T., Levy, R. C., Villanueva, V., Sánchez, S. F., Ho, L. C., Vogel, S. N., Teuben, P., Rubio, M. 2022, A&A, 666, A175, doi: 10.1051/0004-6361/202244306.
- [24] "The Morpho-kinematic Architecture of Super Star Clusters in the Center of NGC 253"
  Levy, R. C., Bolatto, A. D., Leroy, A. K., Sormani, M. C., Emig, K. L., Gorski, M., Lenkić, L., Mills, E. A. C., Tarantino, E., Teuben, P., Veilleux, S., Walter, F. 2022, ApJ, 935, 19, doi: 10.3847/1538-4357/ac7b7a.
- [23] "Cuspy dark matter density profiles in massive dwarf galaxies"
  Cooke, L. H., Levy, R. C., Bolatto, A. D., Simon, J. D., Newman, A. B., Teuben, P., Davey, B. D., Wright, M., Tarantino, E., Lenkić, L., Villanueva, V. 2022, MNRAS, 512, 1012, doi: 10.1093/mnras/stac588.
- [22] "ALMA Imaging of a Galactic Molecular Outflow in NGC 4945"

- Bolatto, A. D., Leroy, A. K., Levy, R. C., Meier, D. S., Mills, E. A. C., Thompson, T. A., Emig, K. L., Veilleux, S., Ott, J., Gorski, M., Walter, F., Lopez, L. A., Lenkić, L. 2021, ApJ, 923, 83, doi: 10.3847/1538-4357/ac2c08.
- [21] "The EDGE-CALIFA Survey: The Resolved Star Formation Efficiency and Local Physical Conditions" Villanueva, V., Bolatto, A., Vogel, S., Levy, R. C., Sánchez, S. F., Barrera-Ballesteros, J., Wong, T., Rosolowsky, E., Colombo, D., Rubio, M., Cao, Y., Kalinova, V., Leroy, A., Utomo, D., Herrera-Camus, R., Blitz, L., Luo, Y. 2021, ApJ, 923, 60, doi: 10.3847/1538-4357/ac2b29.
- [20] "Clustered Star Formation in the Center of NGC 253 Contributes to Driving the Ionized Nuclear Wind" Mills, E. A. C., Gorski, M., Emig, K. L., Bolatto, A. D., Levy, R. C., Leroy, A. K., Ginsburg, A., Henshaw, J. D., Zschaechner, L. K., Veilleux, S., Tanaka, K., Meier, D. S., Walter, F., Krieger, N., Ott, J. 2021, ApJ, 919, 105, doi: 10.3847/1538-4357/ac0fe8.
- [19] "NOEMA High-fidelity Imaging of the Molecular Gas in and around M82"
  Krieger, N., Walter, F., Bolatto, A. D., Guillard, P., Lehnert, M., Leroy, A. K., Pety, J., Emig, K. L., Levy, R. C., Krips, M., Rix, H.-W., Salak, D., Weiss, A., Veilleux, S. 2021, ApJL, 915, L3, doi: 10.3847/2041-8213/ac01e9.
- [18] "Characterizing the Multiphase Origin of [C II] Emission in M 101 and NGC 6946 with Velocity-resolved Spectroscopy"
  Tarantino, E., Bolatto, A. D., Herrera-Camus, R., Harris, A. I., Wolfire, M., Buchbender, C., Croxall, K. V., Dale, D. A., Groves, B., Levy, R. C., Riquelme, D., Smith, J. D. T., Stutzki, J. 2021, ApJ, 915, 92, doi: 10.3847/1538-4357/abfcc6.
- [17] "The EDGE-CALIFA survey: self-regulation of star formation at kpc scales" Barrera-Ballesteros, J. K., Sánchez, S. F., Heckman, T., Wong, T., Bolatto, A., Ostriker, E., Rosolowsky, E., Carigi, L., Vogel, S., Levy, R. C., Colombo, D., Luo, Y., Cao, Y. 2021, MNRAS, 503, 3643, doi: 10.1093/mnras/stab755.
- [16] "Outflows from Super Star Clusters in the Central Starburst of NGC 253"
  Levy, R. C., Bolatto, A. D., Leroy, A. K., Emig, K. L., Gorski, M., Krieger, N., Lenkić, L., Meier, D. S., Mills, E. A. C., Ott, J., Rosolowsky, E., Tarantino, E., Veilleux, S., Walter, F., Weiß, A., Zwaan, M. A. 2021, ApJ, 912, 4, doi: 10.3847/1538-4357/abec84.
- [15] "The EDGE-CALIFA survey: the local and global relations between Σ\*\*, Σ\*\*, Σ\*\*, and Σ\*\*mol that regulate star formation"
  Sánchez, S. F., Barrera-Ballesteros, J. K., Colombo, D., Wong, T., Bolatto, A., Rosolowsky, E., Vogel, S., Levy, R., Kalinova, V., Alvarez-Hurtado, P., Luo, Y., Cao, Y. 2021, MNRAS, 503, 1615, doi: 10.1093/mnras/stab442.
- [14] "The EDGE-CALIFA survey: exploring the role of molecular gas on galaxy star formation quenching" Colombo, D., Sanchez, S. F., Bolatto, A. D., Kalinova, V., Weiß, A., Wong, T., Rosolowsky, E., Vogel, S. N., Barrera-Ballesteros, J., Dannerbauer, H., Cao, Y., Levy, R. C., Utomo, D., Blitz, L. 2020, A&A, 644, A97, doi: 10.1051/0004-6361/202039005.
- [13] "Super Star Clusters in the Central Starburst of NGC 4945"
  Emig, K. L., Bolatto, A. D., Leroy, A. K., Mills, E. A. C., Jiménez Donaire, M. J., Tielens, A. G. G. M., Ginsburg, A., Gorski, M., Krieger, N., Levy, R. C., Meier, D. S., Ott, J., Rosolowsky, E., Thompson, T. A., Veilleux, S. 2020, ApJ, 903, 50, doi: 10.3847/1538-4357/abb67d.
- [12] "The Turbulent Gas Structure in the Centers of NGC 253 and the Milky Way"
  Krieger, N., Bolatto, A. D., Koch, E. W., Leroy, A. K., Rosolowsky, E., Walter, F., Weiß, A., Eden, D. J., Levy, R. C., Meier, D. S., Mills, E. A. C., Moore, T., Ott, J., Su, Y., Veilleux, S. 2020, ApJ, 899, 158, doi: 10.3847/1538-4357/aba903.

[11] "The Molecular Interstellar Medium in the Super Star Clusters of the Starburst NGC 253" Krieger, N., Bolatto, A. D., Leroy, A. K., Levy, R. C., Mills, E. A. C., Meier, D. S., Ott, J., Veilleux, S., Walter, F., Weiß, A. 2020, ApJ, 897, 176, doi: 10.3847/1538-4357/ab9c23.

- [10] "The EDGE-CALIFA survey: using optical extinction to probe the spatially resolved distribution of gas in nearby galaxies"
  Barrera-Ballesteros, J. K., Utomo, D., Bolatto, A. D., Sánchez, S. F., Vogel, S. N., Wong, T., Levy,
  - R. C., Colombo, D., Kalinova, V., Teuben, P., García-Benito, R., Husemann, B., Mast, D., Blitz, L. 2020, MNRAS, 492, 2651, doi: 10.1093/mnras/stz3553.
- [9] "The EDGE-CALIFA Survey: Evidence for Pervasive Extraplanar Diffuse Ionized Gas in Nearby Edgeon Galaxies"
  - Levy, R. C., Bolatto, A. D., Sánchez, S. F., Blitz, L., Colombo, D., Kalinova, V., López-Cobá, C., Ostriker, E. C., Teuben, P., Utomo, D., Vogel, S. N., Wong, T. 2019, ApJ, 882, 84, doi: 10.3847/1538-4357/ab2ed4.
- [8] "The Molecular Outflow in NGC 253 at a Resolution of Two Parsecs"
  Krieger, N., Bolatto, A. D., Walter, F., Leroy, A. K., Zschaechner, L. K., Meier, D. S., Ott, J., Weiss, A., Mills, E. A. C., Levy, R. C., Veilleux, S., Gorski, M. 2019, ApJ, 881, 43, doi: 10.3847/1538-4357/ab2d9c.
- [7] "Forming Super Star Clusters in the Central Starburst of NGC 253"
  Leroy, A. K., Bolatto, A. D., Ostriker, E. C., Walter, F., Gorski, M., Ginsburg, A., Krieger, N., Levy,
  R. C., Meier, D. S., Mills, E., Ott, J., Rosolowsky, E., Thompson, T. A., Veilleux, S., Zschaechner,
  L. K. 2018, ApJ, 869, 126, doi: 10.3847/1538-4357/aaecd1.
- [6] "The EDGE-CALIFA survey: validating stellar dynamical mass models with CO kinematics" Leung, G. Y. C., Leaman, R., van de Ven, G., Lyubenova, M., Zhu, L., Bolatto, A. D., Falcón-Barroso, J., Blitz, L., Dannerbauer, H., Fisher, D. B., Levy, R. C., Sanchez, S. F., Utomo, D., Vogel, S., Wong, T., Ziegler, B. 2018, MNRAS, 477, 254, doi: 10.1093/mnras/sty288.
- [5] "The EDGE-CALIFA Survey: Molecular and Ionized Gas Kinematics in Nearby Galaxies"
  Levy, R. C., Bolatto, A. D., Teuben, P., Sánchez, S. F., Barrera-Ballesteros, J. K., Blitz, L., Colombo, D., García-Benito, R., Herrera-Camus, R., Husemann, B., Kalinova, V., Lan, T., Leung, G. Y. C., Mast, D., Utomo, D., van de Ven, G., Vogel, S. N., Wong, T. 2018, ApJ, 860, 92, doi: 10.3847/1538-4357/aac2e5.
- [4] "The EDGE-CALIFA survey: the influence of galactic rotation on the molecular depletion time across the Hubble sequence"
  Colombo, D., Kalinova, V., Utomo, D., Rosolowsky, E., Bolatto, A. D., Levy, R. C., Wong, T., Sanchez, S. F., Leroy, A. K., Ostriker, E., Blitz, L., Vogel, S., Mast, D., García-Benito, R., Husemann, B., Dannerbauer, H., Ellmeier, L., Cao, Y. 2018, MNRAS, 475, 1791, doi: 10.1093/mnras/stx3233.
- [3] "The EDGE-CALIFA Survey: Variations in the Molecular Gas Depletion Time in Local Galaxies" Utomo, D., Bolatto, A. D., Wong, T., Ostriker, E. C., Blitz, L., Sanchez, S. F., Colombo, D., Leroy, A. K., Cao, Y., Dannerbauer, H., Garcia-Benito, R., Husemann, B., Kalinova, V., Levy, R. C., Mast, D., Rosolowsky, E., Vogel, S. N. 2017, ApJ, 849, 26, doi: 10.3847/1538-4357/aa88c0.
- [2] "The EDGE-CALIFA Survey: Interferometric Observations of 126 Galaxies with CARMA" Bolatto, A. D., Wong, T., Utomo, D., Blitz, L., Vogel, S. N., Sánchez, S. F., Barrera-Ballesteros, J., Cao, Y., Colombo, D., Dannerbauer, H., García-Benito, R., Herrera-Camus, R., Husemann, B., Kalinova, V., Leroy, A. K., Leung, G., Levy, R. C., Mast, D., Ostriker, E., Rosolowsky, E., Sandstrom, K. M., Teuben, P., van de Ven, G., Walter, F. 2017, ApJ, 846, 159, doi: 10.3847/1538-4357/aa86aa.
- [1] "Dense Molecular Gas Tracers in the Outflow of the Starburst Galaxy NGC 253"

Walter, F., Bolatto, A. D., Leroy, A. K., Veilleux, S., Warren, S. R., Hodge, J., Levy, R. C., Meier, D. S., Ostriker, E. C., Ott, J., Rosolowsky, E., Scoville, N., Weiss, A., Zschaechner, L., Zwaan, M. 2017, ApJ, 835, 265, doi: 10.3847/1538-4357/835/2/265.