

MICHAEL J. NICANDRO ROSENTHAL

Sterling Hall #3504, 475 N Charter St, Madison, WI, USA 53706

✉ rosenthal@astro.wisc.edu ☎ +1 (608) 334 3553

EDUCATION

University of Wisconsin–Madison, USA <i>Ph.D. in Astronomy</i>	<i>Aug 2020 – present</i>
University of Wisconsin–Madison, USA <i>Masters of Science in Astronomy</i>	<i>Aug 2020 – Aug 2022</i>
New York University Abu Dhabi, UAE <i>Bachelor of Science in Physics, cum laude with honors</i>	<i>Aug 2015 – May 2019</i>

RESEARCH POSITIONS

University of Wisconsin–Madison, USA Graduate Research Assistant; <i>Advisor: Prof. Amy J. Barger</i>	<i>Sep 2020 – present</i>
New York University Abu Dhabi, UAE Post-baccalaureate Research Assistant; <i>Advisor: Prof. Ingyin Zaw</i>	<i>Sep 2019 – Aug 2020</i>
Sterrewacht Leiden, the Netherlands Leiden/ESA Astrophysics Program for Summer Students; <i>Advisor: Dr. Wendy L. Williams</i>	<i>Jun 2019 – Aug 2019</i>
New York University Abu Dhabi, UAE Undergraduate Research Assistant; <i>Advisor: Prof. Ingyin Zaw</i>	<i>Sep 2017 – May 2019</i>

TEACHING AND LEADERSHIP POSITIONS

Department of Astronomy, University of Wisconsin–Madison Instructor of Record, Astronomy 103 “The Evolving Universe – Stars, Galaxies, and Cosmology”	<i>Jun 2024 – Aug 2024</i>
Department of Astronomy, University of Wisconsin–Madison Teaching Assistant, Astronomy 103 “The Evolving Universe – Stars, Galaxies, and Cosmology”; <i>Instructor of Record: Rachel L. McLure</i>	<i>Jun 2022 – Jul 2022</i>
Office of Spiritual Life and Inter-Cultural Education, New York University Abu Dhabi Dialogue Ambassador; <i>Supervisors: Dr. Alta Mauro & Dr. Abdulla Rothman</i>	<i>Aug 2016 – Dec 2018</i>

PUBLICATIONS

Publications as first author:

1. **Nicandro Rosenthal, M. J.**, Barger, A. J., Cowie, L. L., et al., 2025, “Spectroscopic Confirmation of a Massive Protocluster with Two Substructures at $z \simeq 3.1$ ”, *ApJ*, 979, 247
2. **Rosenthal, M. J.** & Zaw, I. 2020, “A search for H₂O masers in 100 active dwarf galaxies”, *MNRAS*, 499, 1233.

Publications as co-author:

1. McKay, S. J., Barger, A. J., Cowie, L. L. & **Nicandro Rosenthal, M. J.**, 2025, “The Physical Properties and Morphologies of Faint Dusty Star-forming Galaxies Identified with JWST”, arXiv:2503.00102, *ApJ* accepted.
2. Saika, P., (*10 others*), **Rosenthal, M. J.**, et al., 2025, “Peering into the heart of darkness with VLBA : Radio Quiet AGN in the JWST North Ecliptic Pole Time-Domain Field”, arXiv:2506.18112, *ApJ* accepted.
3. McKay, S. J., Barger, A. J., Cowie, L. L., Bauer, F. E., & **Nicandro Rosenthal, M. J.**, 2023, “Dust Properties of GOODS-S Galaxies based on Multiwavelength ALMA Millimeter Observations”, *ApJ*, 951, 48.

4. Cowie, L. L., (5 others), **Rosenthal, M. J.**, & Taylor, A. J. 2022, “A Submillimeter Survey of Faint Galaxies Behind Ten Strong Lensing Clusters”, ApJ, 939, 5.
5. Jones, L. H., **Rosenthal, M. J.**, Barger, A. J., & Cowie, L. L. 2021, “NOEMA Redshift Measurements of Extremely Bright Submillimeter Galaxies near the GOODS-N”, ApJ, 916, 46.
6. Kondapally, R., (37 others, inc. 17 in alphabetical order), **Rosenthal, M. J.**, et al., 2021, “The LOFAR Two-meter Sky Survey: Deep Fields Data Release 1. III. Host-galaxy identifications and value added catalogues”, A&A, 648, A3.
7. Zaw, I., **Rosenthal, M. J.**, Katkov, I., et al. 2020, “An Accreting, Anomalously Low-mass Black Hole at the Center of Low-mass Galaxy IC 750”, ApJ, 897, 111.

Total citations: 97 (as of Apr 2024)

SUCCESSFUL OBSERVING AND FUNDING PROPOSALS

Funding Proposals as PI

ALMA Student Observing Support (Archival), 2023	\$39,992
Sigma Xi Grants in Aid of Research, 2022	\$3,300
Wisconsin Space Grant Consortium, 2022	\$4,880
HST Mid-Cycle 28 Funding (see Prop ID 16504 below), 2021	\$77,741

Observing Proposals as PI or Co-I

Rosenthal, M. J., Jones, L. H., Barger, A. J. & Cowie, L. L. 2021, “A Spectroscopically Confirmed Massively Star-forming Protocluster at $z = 3.14$ ”, HST Mid-Cycle 28, General Observing, Prop ID 16504, awarded 5 orbits.

Zaw, I., Gelfand, J., Rosenthal, M. J. et al. 2019, “X-ray Emission from Dwarf Galaxy IC 750”, Cycle 21, General Observing, Prop ID 21700389, awarded 150 kiloseconds.

Rosenthal, M. J. N., Barger, A. J. & Cowie, L. L. 2022, “Spectroscopic Redshifts of Distant, Moderately-Luminous Submillimeter Galaxies” (continued), Northern Extended Millimeter Array (NOEMA), Project Code S22CV, 16 hours D-configuration.

Rosenthal, M. J., Jones, L. H., Barger, A. J. & Cowie, L. L. 2022, “Constraining the Molecular Gas Reservoirs in a Submm-Bright $z \sim 3.1$ Protocluster”, Karl G. Jansky Very Large Array, Prop ID VLA/22A-402, 6.5 hours D-configuration.

Rosenthal, M. J., Barger, A. J., Cowie, L. L. & Jones, L. H., 2021, “Mapping a Massively Star-Forming Protocluster Near the GOODS-N”, NOEMA, Prop ID P404898, Project Code W21DJ, 15 hours D-configuration.

Rosenthal, M. J., Barger, A. J., Cowie, L. L. & Jones, L. H., 2021, “Spectroscopic Redshifts of Distant, Moderately-Luminous Submillimeter Galaxies”, NOEMA, Prop ID P395419, Project Code S21CW, 8 hours D-configuration.

Jones, L. H., Rosenthal, M. J., Barger, A. J. & Cowie, L. L. 2020, “A Massively Star-forming Proto-cluster in the GOODS-N”, NOEMA, Prop ID P383594, Project Code W20DH, 13 hours D-configuration.

Zaw, I., Rosenthal, M., Gelfand, J. & Briske, W. 2020, “Additional VLBA Observation of Maser Emission in IC 750”, Very Long Baseline Array, Prop ID VLBA/20B-474, 12 hours.

Zaw, I., Rosenthal, M., Al Yazeedi, A. et al. 2020, “Search for Water Masers in IR Selected Active Dwarf Galaxies”, Green Bank Telescope, Prop ID GBT/20A, 27.5 hours.

Zaw, I., Rosenthal, M., Al Yazeedi, A. & Gelfand, J., 2019, “Search for H₂O Masers in Active Dwarf Galaxies”, Green Bank Telescope, Prop ID GBT/19B-281, 25 hours.

Zaw, I., Briske, W., Rosenthal, M. et al. 2019, “Follow-up VLBA Observation of Maser Emission in IC 750”, Very Long Baseline Array, Prop ID VLBA/19B-038, 15 hours.

PRESENTATIONS

Invited Presentations:

“Unveiling Gas and Dust in High- z Galaxies”, Mar 2024, ALMA Proposal Preparation Workshop, UW–Madison, Talk.

“The Big and Small of Dusty Star-forming Galaxies”, Sept 2023, West Virginia University Journal Club, Talk.

“Hidden Monsters: Dusty Galaxies”, Apr 2023, Astronomy on Tap Madison, Talk.

“A Protocluster of Dusty Star-forming Galaxies at $z \sim 3$ ”, Oct 2022, UH IfA Galaxies and Cosmology Journal Club, Talk.

“A Protocluster of Dusty Star-forming Galaxies at $z \sim 3$ ”, Oct 2022, Wisconsin-IRAM-CAS Science Seminar, Talk.

Zhang, K., Soares-Furtado, M., & Rosenthal, M. J. N., “How to Get Into Graduate School”, Oct 2022, UW–Madison, Panel Presentation.

“Many Dishes to Rule Them All: Interferometry Unveiling the History of Dusty Star Formation”, Oct 2021, UW-Madison Department of Astronomy Board of Visitors Meeting, Talk.

Contributed Presentations:

Nicandro Rosenthal, M. J., Barger, A. J., Cowie, L. L. et al. 2024, “Deep ALMA Stacking of NIRCам Quiescent Galaxy Candidates in A2744 and the CDF-S”, 243rd Meeting of the American Astronomical Society, iPoster.

Rosenthal, M. J., Barger, A. J., Cowie, L. L., et al. 2023, “A Dust-Rich Protocluster at $z = 3$ ”, 241st Meeting of the American Astronomical Society, iPoster. **Chambliss Award Honorable Mention.**

Rosenthal, M. J., Zaw, I., Greenhill, L., et al. 2020, “Star Formation and AGN Contributions in the Water Maser Host Galaxy NGC 4945”, 237th Meeting of the American Astronomical Society, Talk.

Rosenthal, M., Zaw, I., Greenhill, L., et al. 2019, “Mapping the Warped H₂O Maser Disk in the Dwarf Galaxy IC 750”, 235th Meeting of the American Astronomical Society, Poster.

RELEVANT SKILLS

Observing experience:

Keck/KCWI – 1 night remote

Keck/LRIS – 0.5 nights remote, 1 night WMKO Waimea

Keck/DEIMOS – 3 nights remote

Keck/MOSFIRE – 3 nights remote, 2 nights WMKO Waimea

Green Bank Telescope – 30 hours remote

Data reduction software:

Green Bank Telescope IDL (GBTIDL)

Common Astronomy Software Applications (CASA)

Astronomical Image Processing Software (AIPS)

Millimeter Interferometry Reduction (MIR) for the SMA

GILDAS

Chandra Interactive Analysis of Observations (CIAO)

Programming:

Python (10 years experience), with proficiency in AstroPy, NumPy, SciPy

SQL (1 year experience)

ASTRONOMY WORKSHOPS

Penn State University Summer School in Statistics for Astronomers

Jun 2021

Space Telescope Sci. Inst. Multi-Object Spectroscopy for Statistical Measures of Galaxy Evolution

May 2021

Submillimeter Array Interferometry School

Mar 2021

AAS 237 Astropy Workshop

Jan 2020

Green Bank Observatory & Arecibo Observatory Remote Observer Training
AAS 235 *Chandra*/CIAO X-ray data workshop

Aug 2019

Jan 2019

AWARDS AND HONORS

AAS Chambliss Award Honorable Mention	<i>Jun 2024</i>
AAS Chambliss Award Honorable Mention	<i>Jan 2023</i>
AAS Nova research highlight	<i>Jun 2020</i>
NYU Abu Dhabi Founders Day Award	<i>May 2019</i>
NYU Abu Dhabi Campus Life Leadership Award for Diversity, Dialogue, and Inclusion	<i>2018</i>

OUTREACH AND SERVICE

UW–Madison Astronomy Department, graduate peer mentor	<i>Aug 2023 – Present</i>
UW–Madison Astronomy Department, prospective students committee	<i>Jan 2024 – Apr 2024</i>
UW–Madison Astronomy Department, graduate admissions committee	<i>Oct 2022 – Apr 2023</i>
Washburn Observatory Public Observing	<i>Spring 2021 – Present</i>
Radio Astronomy, contributing author	<i>Aug 2020 – Aug 2022</i>