

Erini Lambrides

NPP FELLOW/NASA-GODDARD

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Summary

Research	Leveraging multi-wavelength data to chart <i>both</i> SMBH growth and galaxy evolution across a large range of physical scales in the first 3 Gyrs. Mapping observations to simulations/theory to understand the formation and fate of the first growing SMBHS
Grants	Over 950K in grants and awards secured over the past 5 years.
Papers	6 first author plus 1 in prep, 29 co-author, 860+ citations
Presentations	20 Invited Talks, 15 since 2022, 6 International PI of Chandra Very Large Program, AGN Lead in COSMOS-Web Collaboration, Morphology Lead of MEGA JWST Proposal, Founder and Co-Leader of NASA-PEER - NASA-Goddard's first Post-Bac Mentorship Program, Organizer of NASA-Goddard AGN Talk Series, PI of JWST, XMM Proposals, AAS Working Group Member on Poverty in Astronomy, Graduate Representative of JHU PHA's Diversity and Equity Committee (Former), President of JHU's Outreach Group (Former)
Students	2 Post-baccs 1 , graduate student, Principle advisor of two student-led papers in prep PI/Co-I and Observer of Several HST, JWST, ALMA, XMM, Keck, and Chandra Proposals. Expertise in Spectroscopic and/or Imaging Reduction and Analysis of Low to High Frequency Radio, Sub-MM, MIR, NIR, Optical, UV, and X-ray wavelengths
Observing Experience	

Positions Held

National Postdoctoral Fellow

NASA-GODDARD SPACE FLIGHT CENTER

Sponsor: Dr. Andrew Francis Ptak

Greenbelt, MD

March 2022 - Present

Research Assistant & BridgeUp:STEM Instructor

AMERICAN MUSEUM OF NATURAL HISTORY, DEPARTMENT OF ASTROPHYSICS & BDNYC

NY, NY

September 2013 - 2015

Education

Johns Hopkins University | PhD in Astronomy and Astrophysics

DEPT OF PHYSICS AND ASTRONOMY

PhD Advisors: Dr. Timothy Heckman and Dr. Marco Chiaberge

Baltimore, MD

December 2021

Univeristy of Rochester | B.S. in Physics

DEPT OF PHYSICS AND ASTRONOMY

Rochester, NY

May 2013

Observing Experience

Chandra: 250h, Cycle 26 VLP 6818 (PI, \$150k)	2024
JWST: 8h, Cycle 3 GO 6074 (PI, \$144k)	2024
JWST: 23.3h, Cycle 3 GO 5507 (Co-I)	2024
JWST: Archival, Cycle 3 AR 5213 (Co-I)	2024
ALMA: 143.5h, Cycle 10 2023.1.00180.L (Co-I)	2023
ALMA: 29h, Cycle 10 2023.1.00885.S (Co-I)	2023
JWST: 52.7h, Cycle 2 GO 3794, \$26k (Co-I)	2023
JWST: 4.2h, Cycle 2 GO 4038 (Co-I)	2023
XMM-Newton, 294ks, A022 092258 (PI)	2023A
W.M. Keck MOSFIRE, 3 Night	2022B/2023A
W.M. Keck LRIS, 2 Night	2023A

Awards, Grants, and Fellowships

Heising-Simons Foundation's Open Science Conference Call, (Co-PI \$70K)	Oct '24
North American ALMA Science Center Conference Funding Support, (Co-PI \$12K)	Oct '24
NASA National Postdoctoral Fellowship, \$375K	Mar '22-'25
JHU PHA Travel Award, \$2K	May '19
JHU Alumni Lenrow Student Grant, \$5K	Oct '18
NASA Maryland Space Grant Fellowship, \$198K	Sept '16-'19
JHU Space@Hopkins Fellowship	Sept '15-'16

Selected Professional Talks

★=Invited

★ AAS 2025: DC, Special Session – Space-Based Far-Infrared Science for the 2030s	Jan '25
★ The First Gyr(s) Conference, Hilo, HI	Oct '24
★ Rising Stars in Physics, Columbia/CCA, NYC	Sept '24
AGN Across Continents, Durham University, UK	July '24
Massive Black Holes in the First Billion Years, Kinsale, IRE	Apr '24
★ Colloquium, Dept. of Astronomy and Astrophysics, UMass-Amherst	May '24
Aspen Winter 2024 – The Physics and Impact of Astrophysical Dust	Mar '24
★ University of Pittsburgh and CMU Joint Astrophysics Seminar	Jan '24
★ AAS 2024: New Orleans, Special Session – First Results from COSMOS-Web	Jan '24
★ Accretion History of AGN Workshop, U Miami	Dec '23
Resolving the Universe with JWST and ALMA, Waseda U, Tokyo	Nov '23
★ BASH Fest, UT-Austin	Oct '23
★ Mid-Atlantic Radio-Loud AGN Meeting, GMU, Featured Speaker	Oct '23
★ JHU and NASA-Goddard Interaction Day, JHU	Sep '23
STScI's First Year of Science with JWST Conference, Baltimore,	Sep '23
COSMOS Meeting, RIT	Jun '23
★ COSPAR Athens, Special Session – AGN in the X-rays	Jul '22
COSMOS Meeting, Paris	Jul '22
★ University of Bologna/INAF Astrophysics Colloquium	Jul '22

★ University of Kansas Astrophysics Colloquium	Jan '22
★ NASA-Goddard AGN Seminar	Dec '21
★ Young Astronomers on Galactic Nuclei (YAGN) Conference	Sep '21
★ Harvard's Center for Astrophysics - Galaxy Clusters Seminar	Jul '21
Space Telescope Science Institute Hot Sci Series	Jul '18, Jul'21
★ National Observatory of Athens (IAASARS) Astrophysics Seminar	Feb '21
Supermassive Black Holes Conference, Chile (Covid-19 Remote)	Dec '20
★ UC Irvine Astronomy Seminar	Nov '20
Johns Hopkins University Wine and Cheese Seminar	Sep '18,'19,'20
Mid-Atlantic Radio-Loud AGN Conference	Oct '18, '19
NOAO Dusting the Universe Conference	Mar '19
Canada-France-Hawaii Telescope Colloquium	May '18

Advising, Leadership, DEI & Teaching

Advising

Yukta Ajay– Johns Hopkins Graduate Student	Spring '25
Emma Kleiner – NASA-Goddard Research Assistant	Jan '22 - June'24
Jordan Foreman – NASA-Goddard Post-Bacc Program	June '23 - June'24
Amethyst Barnes – NASA-Goddard Post-Bacc Program	Sept '23 - June'24

DEI and Outreach Leadership and Development

Founder and Co-Leader of NASA-PEER July 22' - Present
 NASA-Goddard's Post-Bacc Constellation Mentorship Program

- Strengthening the STEM pipeline by developing programmatics and mentorship networks for predominately marginalized post-bachelor researchers applying to graduate school (comprised of **20** post-baccs, **15** post-doc mentors, **18** research sponsors across all science divisions at GSFC. Last years cohort culminated to a **70%** graduate program acceptance rate

Member of AAS Poverty in Astronomy Working Group Aug '23 - Present

- Conducted a nation-wide survey to assess the scope and impact of poverty on aspiring and present day astronomers across the United States. Preliminary results to be reported at AAS 245 special session.

Founding Member of JHU P&A Committee for Diversity and Inclusion Dec '20 - '21

- Co-created the first climate survey within the JHU Department of Physics and Astronomy, co-wrote an analytical report of the findings, and provided actionable steps to develop a more inclusive environment within the department based on survey results.

President of JHU P&A Graduate Student Diversity and Inclusion Group Sept '20 - Aug '21

- Co-developed and led workshops on equitable and inclusive practices for college physics instructors that is now a permanent part of the standard graduate teaching orientation program

President of JHU PHA Department Wide Outreach Group - President Sept '16 - '19

- Led a **60** member team for three years orchestrating in-class and extracurricular science activities. Interacted with **3000+** local Baltimore students through a self-built portable planetarium and science demonstrations at organized events.

Scientific Leadership, Development, and Service

co-Lead/SOC of "New Data that Challenges Underlying Assumptions" Conference, Acadia, ME	Jul '25
SOC of First Black Holes Conference, UMD, MD	Nov '24
PI of COSMOS-WebX	Oct '24 - Present
AGN Lead of COSMOS-Web Collaboration	Oct '23 - Present
Morphology Lead of JWST MEGA Survey	Nov '23 - Present
ESA/NASA ATHENA Mission Science Team (US)	Jun '23 - Present
NASA Probe Concept AXIS Mission Community Member	Jan '23 - Present
NASA Goddard AGN Seminar - Organizer	Jan '23 - Present
Joint STScI and Johns Hopkins Galaxies and AGN Seminar - Organizer	Jun '21 - '22

Reviewed for MNRAS, the Astrophysical Journal, Astronomy & Astrophysics, NSF, NASA, and TAC Discussion Panelist for 5 NASA Telescopes

Media Coverage

AAS Journal Author Series Highlight on Lambrides+21a,b¹

NASA/Chandra Press Release of Lambrides+20 results (results also highlighted in pop-sci sites such as Space.com, LiveScience.com)²

Astrobites Coverage of Lambrides+20³

¹<https://www.youtube.com/watch?v=jzGw6cLwFhE>

²https://chandra.harvard.edu/press/20_releases/press_071520.html

³<https://astrobites.org/2020/03/03/hiding-in-plain-sight/>

Publications

First Author

Erini Lambrides, Garofali, Kristen, Larson, Rebecca, Ptak, Andrew, Chiaberge, Marco, Long, Arianna S., Hutchison, Taylor A., Norman, Colin, McKinney, Jed, Akins, Hollis B., Berg, Danielle A., Chisholm, John, Civano, Francesca, Cloonan, Aidan P, Endsley, Ryan, Faisst, Andreas L., Gilli, Roberto, Gillman, Steven, Hirschmann, Michaela, Kartaltepe, Jeyhan S., Kocevski, Dale D., Kokorev, Vasily, Pacucci, Fabio, Richardson, Chris T., Stiavelli, Massimo, Whalen, Kelly E., *The Case for Super-Eddington Accretion: Connecting Weak X-ray and UV Line Emission in JWST Broad-Line AGN During the First Gyr of Cosmic Time*, submitted to Nature Astronomy upon successful pre-submission inquiry, in-review, arxiv:2409.13047, September 2024.

Erini Lambrides, Andrew F. Ptak, Caitlin M. Casey, Hollis B. Akins, Colin Norman, John D. Silverman, Massimo Stiavelli. *A Census of High-z Obscured AGN in COSMOS-Web*, in prep, Draft Available Upon Request

Erini Lambrides, Marco Chiaberge, Arianna Long, Daizhong Liu, Hollis B. Akins, Andrew F. Ptak, Irham Taufik Andika, Alessandro Capetti, Caitlin M. Casey, Jaclyn B. Champagne, Katherine Chworowsky, Olivia R. Cooper, Xuheng Ding, Andreas L. Faisst, Maximilien Franco, Steven Gillman, Ghassem Gozaliasl, Kirsten R. Hall, Santosh Harish, Christopher Hayward, Michaela Hirschmann, Taylor A. Hutchison, Knud Jahnke, Shuowen Jin, Jeyhan S. Kartaltepe, Anton M. Koekemoer, Vasily Kokorev, Sinclair M. Manning, Crystal L. Martin, Jed McKinney, Colin Norman, Masafusa Onoue, Brant E. Robertson, Marko Shuntov, John D. Silverman, Massimo Stiavelli, Benny Trakhtenbrot, Eleni Vardoulaki, Jorge A. Zavala, Natalie Allen, Olivier Ilbert, Henry Joy McCracken, Louise Paquereau, Jason Rhodes, and Sune Toft. *Uncovering a Massive $z \sim 7.7$ Galaxy Hosting a Heavily Obscured Radio-Loud AGN Candidate in COSMOS-Web*, ApJL, 961 (1:25L), October 2023

Erini Lambrides, Marco Chiaberge, Timothy Heckman, Allison Kirkpatrick, Eileen T. Meyer, Andreea Petric, Kirsten Hall, Arianna Long, Duncan J. Watts, Roberto Gilli, Raymond Simons, Kirill Tchernyshyov, Vicente Rodriguez-Gomez, Fabio Vito, Alexander de la Vega, Jeffrey R. Davis, Dale D. Kocevski, and Colin Norman. *Lower-luminosity Obscured AGN Host Galaxies Are Not Predominantly in Major-merging Systems at Cosmic Noon*, ApJ, 919(2):129, October 2021.

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Colin Norman. *A Large Population of Obscured AGN in Disguise as Low-luminosity AGN in Chandra Deep Field South*, ApJ, 897(2):160, July 2020.

Erini Lambrides, Andreea O. Petric, Kirill Tchernyshyov, Nadia L. Zakamska, and Duncan J. Watts. *Mid-infrared spectroscopic evidence for AGN heating warm molecular gas*, MNRAS, 487(2):1823–1843, August 2019.

Corresponding Author

★=Significant Contributions

J. Chisholm, et al. incl **Erini Lambrides**, *[Ne v] emission from a faint epoch of reionization-era galaxy: evidence for a narrow-line intermediate-mass black hole*, MNRAS, 534, 2633, October 2024

O. Cooper, et al. incl **Erini Lambrides**, *RUBIES: JWST/NIRSpec resolves evolutionary phases of dusty star-forming galaxies at $z \sim 2$* , arXiv:2410.08387, October 2024

M. Shuntov, et al. incl **Erini Lambrides**, *COSMOS-Web: stellar mass assembly in relation to dark matter halos across $0.2 < z < 12$ of cosmic history*, arXiv:2410.08290, October 2024

H. Akins, et al. incl **Erini Lambrides**, *Strong rest-UV emission lines in a “little red dot” AGN at $z = 7$: Early SMBH growth alongside compact massive star formation?*, arXiv:2410.00949, October 2024

T. Tanaka, et al. incl **Erini Lambrides**, *Crimson Behemoth: a Massive Clumpy Structure Hosting a Dusty AGN at $z = 4.91$* , eprint arXiv:2410.00104, September 2024.

★ A. Long, et al. incl **Erini Lambrides**, *Efficient NIRC2 Selection of Quiescent Galaxies at $3 < z < 6$ in CEERS*, ApJ, 970(1:68L)

J. McKinney, et al. incl **Erini Lambrides**, *SCUBADive I: JWST+ALMA Analysis of 289 submillimeter galaxies in COSMOS-Web*, eprint arXiv:2408.08346, August 2024

A. Long, et al. incl **Erini Lambrides**, *The Extended Mapping Obscuration to Reionization with ALMA (Ex-MORA) Survey: 5σ Source Catalog and Redshift Distribution*, eprint arXiv:2408.14546, August 2024

★ H. Akins, et al. incl **Erini Lambrides**, *COSMOS-Web: The over-abundance and physical nature of “little red dots”–Implications for early galaxy and SMBH assembly*, eprint arXiv:2406.10341, June 2024

Z. Liu, et al. incl [Erini Lambrides](#), *JWST and ALMA discern the assembly of structural and obscured components in a high-redshift starburst galaxy*, ApJ, 968(15), June 2024.

A. Faisst, et al. incl [Erini Lambrides](#), *COSMOS-Web: The Role of Galaxy Interactions and Disk Instabilities in Producing Starbursts at $z < 4$* , eprint arXiv:2405.09619, May 2024.

I. Andika, et al. incl [Erini Lambrides](#), *Tracing the rise of supermassive black holes. A panchromatic search for faint, unobscured quasars at $z \geq 6$ with COSMOS-Web and other surveys*, A&A, 685(25A), May 2024.

P. Brieding et al. incl [Erini Lambrides](#), *Powerful Radio-Loud Quasars are Triggered by Galaxy Mergers in the Cosmic Bright Ages*, ApJ, 963(2:91) March 2024.

T. Tanaka, et al. incl [Erini Lambrides](#), *The $M_{\text{BH}} - M_*$ relation up to $z \sim 2$ through decomposition of COSMOS-Web NIRCcam images*, eprint arXiv:2401.13742, January 2024

A. Traina et al. incl [Erini Lambrides](#), *A3COSMOS: the infrared luminosity function and dust-obscured star formation rate density at $0.5 < z < 6$* , A&A, 681(118A), January 2024

J. McKinney et al. incl [Erini Lambrides](#), *A Near-infrared-faint, Far-infrared-luminous Dusty Galaxy at $z > 5$ in COSMOS-Web*, ApJ 956(2):72, October 2023.

H. Akins, et al. incl [Erini Lambrides](#), *Two Massive, Compact, and Dust-obscured Candidate $z \sim 8$ Galaxies Discovered by JWST.*, ApJ 956(1):61, October 2023.

C. Casey et al. incl [Erini Lambrides](#), *COSMOS-Web: An Overview of the JWST Cosmic Origins Survey*, ApJ, 954(1):31, September 2023.

A. Long et al. incl [Erini Lambrides](#), *Predictions on Dust-obscured Galaxy Stellar Mass Assembly Throughout Cosmic Time*, ApJ, 953(1):11, August 2023.

J. Silverman et al. incl [Erini Lambrides](#), *Resolving Galactic-scale Obscuration of X-Ray AGNs at $z \approx 1$ with COSMOS-Web*, ApJL, 951(2):L41, July 2023

T. Morishita et al. incl [Erini Lambrides](#), *The Host Galaxy of the Recoiling Black Hole Candidate in 3C 186: An Old Major Merger Remnant at the Center of a $z = 1$ Cluster*, ApJ, 931(2):165, June 2022.

C. Hatcher et al. incl [Erini Lambrides](#), *Where Do Obscured AGN Fit in a Galaxy's Timeline?* AJ, 162(2):65, August 2021

★ R. Minsley et al. incl **Erini Lambrides**, *Molecular Gas and Dust Heating in Active Galaxies: Growing Black Holes or Tidal Shocks?*, ApJ, 894(2):157, May 2020.

T. R. Geballe, et al. incl **Erini Lambrides**, *Background Infrared Sources for Studying the Galactic Center's Interstellar Gas*, ApJ, 872(1):103, February 2019.

W. Grimble et al. incl **Erini Lambrides**, *Measurement of cryogenic target position and implosion core offsets on OMEGA*, Physics of Plasmas, 25(7):072702, July 2018.

A. R. Riedel et al. incl **Erini Lambrides**, *LACEwing: A New Moving Group Analysis Code*, AJ, 153(3):95, March 2017.

J. K. Faherty et al. incl **Erini Lambrides**, *Population Properties of Brown Dwarf Analogs to Exoplanets*, ApJS, 225(1):10, July 2016

Key Papers

Erini Lambrides, Garofali, Kristen, Larson, Rebecca, Ptak, Andrew, Chiaberge, Marco, Long, Arianna S., Hutchison, Taylor A., Norman, Colin, McKinney, Jed, Akins, Hollis B., Berg, Danielle A., Chisholm, John, Civano, Francesca, Cloonan, Aidan P, Endsley, Ryan, Faisst, Andreas L., Gilli, Roberto, Gillman, Steven, Hirschmann, Michaela, Kartaltepe, Jeyhan S., Kocevski, Dale D., Kokorev, Vasily, Pacucci, Fabio, Richardson, Chris T., Stiavelli, Massimo, Whalen, Kelly E., *The Case for Super-Eddington Accretion: Connecting Weak X-ray and UV Line Emission in JWST Broad-Line AGN During the First Gyr of Cosmic Time*, submitted to Nature Astronomy upon successful pre-submission inquiry, in-review, arxiv:2409.13047, September 2024.

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References

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