# Laura Lenkić

PhD Candidate • Department of Astronomy • University of Maryland

Department of Astronomy University of Maryland College Park MD 20742-2421 llenkic@umd.edu https://llenkic.github.io 240-355-8352 Citizenship: Canada

## RESEARCH INTERESTS

- Properties of multi-phase ISM in nearby galaxies
- Structure and dynamics of star forming clumps in nearby galaxies
- Radio and infrared emission lines in nearby galaxies
- Cosmic evolution of gas and star formation in galaxies

## **EDUCATION**

Aug 2021 (anticipated)	Ph.D. in Astronomy Thesis: Characterizing Molecular Gas Content and Properties in Galaxies at the Peak of Cosmic Star Forming Activity Advisor: Dr. Alberto Bolatto	University of Maryland College Park, MD
Aug 2016	M.Sc. in Astronomy Thesis: The Ultraviolet and Infrared Star Formation Rates of Compact Group Galaxies: An Expanded Sample Advisor: Dr. Sarah Gallagher	Western University London, ON
Aug 2014	B.Sc. in Physics Minor in Advanced Physics Thesis: The Ultraviolet Star Formation Rates of Compact Group Galaxies Advisor: Dr. Sarah Gallagher	Western University London, ON

## Observational Experience

ALMA	PI	Cycle 7	Confirming Serendipitous High-z Sources in the PHIBSS2 Fields Awarded: 8.7 hours
	Co-I	Cycle 7	Ionized Gas, Radiation Field, Masses, and Dust Temperature in Forming Massive Clusters in the NGC253 Starburst PI: R. Levy
	Co-I	Cycle 7	A Representative Interferometric Survey of Galaxies in the $z=0$ Universe with Full IFU Spectroscopic Coverage: EDGE PI: A. Bolatto
	Co-I	Cycle 7	ACA Mapping of the Largest Supergiant HII Region in the Nearby Universe: 30 Doradus PI: A. Bolatto
	Co-I	Cycle 6	Ionized Gas, Radiation Field, Masses, and Dust Temperature in Forming Massive Clusters in the NGC253 Starburst PI: A. Bolatto

JWST	PI	Cycle 1 (in review)	Ionized Gas Outflows from Star Forming Clumps in the Nearby, Turbulent Galaxy: DYNAMO D13-5
	Co-I	Cycle 1 (in review)	Searching for the Smallest Dust Grains in the Extremely Low Metallicity Dwarf Galaxy Leo P PI: E. Tarantino
	Co-I	Cycle 1 (in review)	Dissecting the Prototypical Starbursts NGC 253 and M 82 and Their Cool Galactic Winds PI: A. Bolatto
NOEMA	PI	Winter19	Confirming Serendipitous High-z Sources in the PHIBSS2 Fields Awarded: 6.0 hours
SOFIA	PI	Cycle 8 & 9	Local Analogues of Turbulent, Clumpy, Main-Sequence Galaxies at the Peak of Cosmic Star Formation Awarded: 17.1 hours and \$171,000
	Co-I	Cycle 9	SOFIA GREAT Mapping of the LMC Northern Molecular Ridge PI: A. Bolatto

# SCIENTIFIC PRESENTATIONS

June 2020	EAS2020 Annual Meeting Poster: Constraints on the Molecular Gas Mass Density Evolution over Cosmic Time from Serendipitous CO Detections in PHIBSS2	Virtual
June 2019	Radio/Millimeter Astrophysical Frontiers in the Next Decade Talk: Constraints on the Molecular Gas Mass Density Evolution over Cosmic Time from Serendipitous CO Detections in PHIBSS2	Charlottesville, VA
Nov 2018	ISM Group Lunch Talk at Goddard Space Flight Center Talk: Results from a CO Line Search in the Plateau de Bure High-z Blue Sequence Survey Data	Greenbelt, MD
Sep 2018	Lunch Talk at the National Science Foundation Talk: Results from a CO Line Search in the Plateau de Bure High-z Blue Sequence Survey Data	Alexandria, VA
June 2018	Astrophysical Frontiers in the Next Decade and Beyond: Planets, Galaxies, Black Holes, and the Transient Universe Talk: Results from a CO Line Search in the Plateau de Bure High-z Blue Sequence Survey Data	Portland, OR
May 2015	Canadian Astronomical Society (CASCA) Annual Meeting Talk: Star Formation and Galaxy Evolution in Compact Groups of Galaxies	Hamilton, ON
July 2014	Compact Group Research Team Meeting Talk: UV and 24 $\mu m$ Results for the Swift Expanded Sample – The Final Cut	London, ON
July 2013	Compact Group Research Team Meeting Talk: $UV$ and 24 $\mu m$ Results for the Swift Expanded Sample	Charlottesville, VA
July 2012	Compact Group Research Team Meeting Talk: Reconstructing the Redshift Survey Compact Group Catalog	Charlottesville, VA

# Honors and Awards

2016	Gregor and Donat Wentzel Scholarship Awarded by the Graduate Entrance Committee to the most promising applicants for graduate study.	University of Maryland Dept. of Astronomy
2016	IMPRS Studentship — Declined ESO is one of the partners in the IMPRS (International Max—Planck Research School) on Astrophysics and offers in Garching two full (3 years) Ph.D. positions every year.	ESO
2015-2016	Ontario Graduate Scholarship — Honorable Mention The Ontario Graduate Scholarship (OGS) program encourages excellence in graduate studies at publicly-assisted universities in Ontario. Since 1975, the OGS program has been providing merit-based scholarships to Ontario's best graduate students in all disciplines of academic study.	Western University
2014	Western Graduate Scholarship	Western University
2013-2014	Dean's Honor List	Western University
2009-2010	Nortel Networks Excellence in Computer Science — Declined Awarded annually to a full-time undergraduate student entering first year of the science program who intends to register in the Honors Computer Science program in year 2 and who achieves a 90% admission average.	Western University

# PROFESSIONAL EXPERIENCE AND WORKSHOPS

Mar 2019	ALMA Proposal Workshop	University of Maryland
May 2018	SOFIA Guest Observer	Palmdale, CA
May 2017	SOFIA Proposal Workshop	University of Maryland
July 2016	Scientific Collaboration Visit	Goddard Space Flight Center
$\mathrm{Dec}\ 2015$	Canada and the Square Kilometre Array	Toronto, ON
$\mathrm{Aug}\ 2015$	ALMA Summer School on Interferometric Techniques	DRAO
May 2015	Statistics in Astronomy	Hamilton, ON
Aug 2014	Computing Skills Bootcamp	Western University
Aug 2012	Scientific Collaboration Visit	Goddard Space Flight Center

# PROFESSIONAL SERVICE

2019-present	UMD Astronomy Department's Graduate Student Council President	University of Maryland
2015	Great Lakes Quasar Symposium — Local Organizing Committee	Western University
2014 - 2016	Graduate Student Council Member	Western University
2014	Collaboration Meeting Organizing Committee	Western University
2013 - 2014	President of Physics & Astronomy Student Association	Western University
2012 - 2013	Vice President of Physics & Astronomy Student Association	Western University

# TEACHING EXPERIENCE

Fall 2020	Teaching Assistant for The Threat of Asteroid Impacts University of Maryland, College Park Non-astronomy major course, Dr. Jessica Sunshine
Spring 2020	Teaching and Lab Assistant for Introduction to Astronomy University of Maryland, College Park Non-science major course, Dr. Alberto Bolatto

Field Assistant for Eyes on the Sky: The Science of Birdwatching

University of Maryland, College Park Honors course, Dr. Derek Richardson

Fall 2019 Teaching Assistant for General Astronomy

University of Maryland, College Park

Non-science major course, Dr. Drake Deming

Winter 2016 Teaching and Lab Assistant for Introductory Physics I

Western University, London

B.Sc. course, Dr. Kanthi Kaluarachchi

Teaching Assistant for Exploring the Stars

Hume Cronyn Memorial Observatory, Western University, London Community Outreach Program, Dr. Margaret Campbell-Brown

Fall 2015 Teaching Assistant for Physics for Engineering Students I

Western University, London B.Eng. course, Dr. Silvia Mittler

Teaching Assistant for General Astronomy

Western University, London B.Sc. course, Dr. Jan Cami

Teaching Assistant for Exploring the Stars

Hume Cronyn Memorial Observatory, Western University, London Community Outreach Program, Dr. Margaret Campbell-Brown

Summer 2015 Teaching Assistant for Essentials of Modern Astronomy

Western University, London

B.Sc. course, Dr. Elizabeth A. Silber

2014–2015 Teaching and Lab Assistant for Introductory Physics I

Western University, London

B.Sc. course, Dr. Kanthi Kaluarachchi

2011–2013 Private Tutor

London, ON

Grade 11 and 12 Applied Mathematics, Calculus, Physics, and Chemistry

## EQUITY, DIVERSITY, AND INCLUSION ACTIVITIES

# 2020 GRAD-MAP Winter Workshop Volunteer and Guest Lec-

University of Maryland

- Prepared Python Jupyter notebooks for students and instructors covering image processing basics, exercises, and introduction to scikit-image.
- $\bullet$  Led an internship application workshop with case studies and writing exercises.
- Worked with students before their final presentations to help them finish their work, prepare their presentations, and practice their talks.
- Chaperoned students to the National Museum of African American History and Culture and other social activities.
- Engaged with students outside of regularly scheduled workshop activities to talk about research and life in graduate school.

2017 - 2020

### Equity, Diversity, and Inclusion Committee Member

- University of Maryland
- $\bullet$  Advocated for the removal of the physics GRE requirement for graduate school applications.
- Re-wrote the section of the graduate handbook outlining the purpose, procedure, and timeline of the second year project, for clarity and accessibility. This included advocating for a revision of the second year project to implement additional elements to better monitor student progress and success.
- Authored a document that is now circulated to the whole department every semester to encourage a normalization of conversations for time away from work for graduate students, and the importance of this for mental health.
- Advocated for, and worked with the department chair and graduate director, to implement a survey for teaching assistants where they may report on the time they spend on teaching, and the type of duties they are responsible for. The goal is to assess the work load of each course, and use that information to evenly distribute work loads among teaching assistants.
- Helped compile and distribute resources for learning about anti-Black racism that have been distributed to the whole department.

2017 - 2018

#### Junior Leader of Astronomy Gentleladies' Network

- Organized and hosted monthly meetings for womxn in physics and astronomy to discuss and learn about topics such as impostor syndrome, the physics GRE and graduate school applications, and how to have crucial diversity conversations.
- Hosted workshops in partnership with the campus health center to talk about mental health in academia, and sexual harassment. In addition, I hosted and organized workshops on goal setting and public outreach.
- Organized and hosted speakers from the Space Telescope Science Institute, and NASA Goddard Space Flight Center to learn about science communication and careers at NASA.
- Participated in organizing a mentoring program for womxn in physics and astronomy. The program was aimed at graduate student mentoring of undergraduate students.
- Organized and hosted bi-weekly tea times to serve as a safe-space for womxn to socialize and freely discuss experiences, feelings, and thoughts.

University of Maryland

### Outreach Experience

2020	Skype a Scientist Volunteer	Virtual
2016	Organizing Member of Transit of Mercury Public Event	Western University
2016	Public Night Speaker Talk: Small Bodies in the Solar System	Hume Cronyn Memorial Observatory
2015	Public Night Speaker Talk: Ground Based Telescopes (but really) A Look at Radio Telescopes	Hume Cronyn Memorial Observatory
2015	Public Night Speaker Talk: The Perseid Meteor Shower; Plus: The Russian Meteor of February 2013	Hume Cronyn Memorial Observatory
2014 - 2016	Public Night Volunteer	Western University
2013	High School Visit — University Recruitment Talk	Saunders High School
2012	Organizing Member for Transit of Venus Public Event	Western University
2011 - 2013	Fall Preview Day Volunteer	Western University

### LIST OF PUBLICATIONS

Link to current publications in ADS

Total Citations: 22 — h-index: 3

#### Refereed Publications

- Lenkić, L., Bolatto, A.D., Förster Schreiber, N.M., et al. 2020, AJ, 159, 190
   Plateau de Bure High-z Blue Sequence Survey 2 (PHIBSS2): Search for Secondary Sources, CO Luminosity Functions in the Field, and the Evolution of Molecular Gas Density through Cosmic Time
- 2. Lenkić, L., Tzanavaris, P., Gallagher, S.C., et al. 2016, MNRAS, 459, 2948

  The Ultraviolet and Infrared Star Formation Rates of Compact Group Galaxies: An Expanded Sample
- 3. Tzanavaris, P., Hornschemeier, A.E., Gallagher, S.C., **Lenkić**, **L.**, et al. 2016, ApJ, 817, 95 Exploring X-Ray Binary Populations in Compact Group Galaxies with Chandra

#### Publications in Preparation

- 1. Girard, M., Fisher, D.B., Bolatto, A.D., et al. (accepted) Systematic difference between ionized and molecular gas velocity dispersion in  $z \sim 1-2$  disks and local analogues
- 2. Levy, R.C., Bolatto, A.D., Leroy, A.K., et al. (in review)

  Outflows from Super Star Clusters in the Central Starburst of NGC 253
- 3. Lenkić, L., Bolatto, A.D., Fisher, D.B., et al. in prep (to be submitted < 2 month)

  The Internal Structure of Star Forming Clumps in DYNAMO Galaxies