

Laura Lenkić

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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

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

PROFESSIONAL EXPERIENCE

Nov 2021	Postdoctoral Researcher, Visiting Advisor: Dr. James Jackson	NASA Ames Research Center Mountain View, CA
2016–present	Research Assistant Advisor: Dr. Alberto Bolatto	University of Maryland College Park, MD
2013–2016	Research Assistant Advisor: Dr. Sarah Gallagher	Western University London, ON
Summer 2011	Research Assistant Advisor: Dr. Michael Kovacs	Lawson Health Research Institute London, ON

OBSERVATIONAL EXPERIENCE

ALMA	PI	Cycle 8 (in review)	<i>Clump Scale Gas Kinematics in the Turbulent, Gas-Rich, Nearby Galaxy DYNAMO D13-5</i>
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	Co-I	Cycle 8 (in review)	<i>The ALMA-CO Resolved Survey (CORES): The Cold ISM in $z \sim 2$ SFGs at kpc Scales</i> Co-PIs: A. Bolatto, N. Förster Schreiber, T. Kodama, M. Rubio, K. Tadaki, L. Tacconi
	Co-I	Cycle 8 (in review)	<i>ACA Mapping of the Largest Supergiant HII Region in the Nearby Universe: 30 Doradus</i> PI: A. Bolatto
	Co-I	Cycle 8 (in review)	<i>The CALIFA-ALMA Survey</i> PI: A. Bolatto
	Co-I	Cycle 8 (in review)	<i>Super Star Clusters in NGC 4945 and their Early Evolution</i> PI: K. Emig
	Co-I	Cycle 8 (in review)	<i>Exploring the Destructive Effects of Wolf-Rayet Feedback in the SMC</i> PI: E. Tarantino
	Co-I	Cycle 8 (in review)	<i>A Top-down View of Massive Cluster Formation in a Nuclear Starburst Ring</i> PI: J. Sun
	Co-I	Cycle 8 (in review)	<i>Measuring the CO-to-H₂ Conversion Factor and the Mass of the Interstellar Medium in NGC3381 and NGC5016</i> PI: V. Villanueva
	Co-I	Cycle 8 (in review)	<i>Using [CI] to Distinguish PDR Structures and Constrain Filament Dynamics in N159</i> PI: C. Volpert
	PI	Cycle 7	<i>Confirming Serendipitous High-z Sources in the PHIBSS2 Fields</i> Awarded: 8.7 hours
	Co-I	Cycle 7	<i>Ionized Gas, Radiation Field, Masses, and Dust Temperature in Forming Massive Clusters in the NGC253 Starburst</i> PI: R. Levy
	Co-I	Cycle 7	<i>A Representative Interferometric Survey of Galaxies in the $z=0$ Universe with Full IFU Spectroscopic Coverage: EDGE</i> PI: A. Bolatto
	Co-I	Cycle 7	<i>ACA Mapping of the Largest Supergiant HII Region in the Nearby Universe: 30 Doradus</i> PI: A. Bolatto
	Co-I	Cycle 6	<i>Ionized Gas, Radiation Field, Masses, and Dust Temperature in Forming Massive Clusters in the NGC253 Starburst</i> PI: A. Bolatto
GBT	Co-I	2021B Semester	<i>GBT EDGE: A Representative Survey of the $z=0$ Universe with Full IFU Spectroscopy</i> PI: A. Bolatto Awarded: 300.0 hours
JWST	Co-I	Cycle 1	<i>Dissecting the Prototypical Starbursts NGC 253 and M 82 and Their Cool Galactic Winds</i> PI: A. Bolatto Awarded: 42.8 hours
NOEMA	PI	Winter 2019	<i>Confirming Serendipitous High-z Sources in the PHIBSS2 Fields</i> Awarded: 6.0 hours

	Co-I	Summer 2021	<i>Dense Molecular Gas in the Outflow of M82</i> PI: F. Walter Awarded: 32.0 hours	
SOFIA	PI	Cycle 8 & 9	<i>Local Analogues of Turbulent, Clumpy, Main-Sequence Galaxies at the Peak of Cosmic Star Formation</i> Awarded: 17.1 hours and \$171,000	
	Co-I	Cycle 9	<i>SOFIA GREAT Mapping of the LMC Northern Molecular Ridge</i> PI: A. Bolatto	

SCIENTIFIC PRESENTATIONS

INVITED TALKS

February 2021	Space Telescope Science Institute Galaxy Journal Club Talk: <i>Gas and Star Formation at the Peak of Cosmic Star Forming Activity</i>	Virtual
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CONTRIBUTED TALKS

April 2021	Ringberg Workshop on “How does small-scale physics drive galaxy evolution?” Talk: <i>Gas and Star Formation at the Peak of Cosmic Star Forming Activity</i>	Virtual
January 2021	The 237 th Meeting of the American Astronomical Society Dissertation Talk: <i>Gas and Star Formation at the Peak of Cosmic Star Forming Activity</i>	Virtual
June 2019	Radio/Millimeter Astrophysical Frontiers in the Next Decade Talk: <i>Constraints on the Molecular Gas Mass Density Evolution over Cosmic Time from Serendipitous CO Detections in PHIBSS2</i>	Charlottesville, VA
November 2018	ISM Group Lunch Talk at Goddard Space Flight Center Talk: <i>Results from a CO Line Search in the Plateau de Bure High-z Blue Sequence Survey Data</i>	Greenbelt, MD
September 2018	Lunch Talk at the National Science Foundation Talk: <i>Results from a CO Line Search in the Plateau de Bure High-z Blue Sequence Survey Data</i>	Alexandria, VA
June 2018	Astrophysical Frontiers in the Next Decade and Beyond: Planets, Galaxies, Black Holes, and the Transient Universe Talk: <i>Results from a CO Line Search in the Plateau de Bure High-z Blue Sequence Survey Data</i>	Portland, OR
May 2015	Canadian Astronomical Society (CASCA) Annual Meeting Talk: <i>Star Formation and Galaxy Evolution in Compact Groups of Galaxies</i>	Hamilton, ON
July 2014	Compact Group Research Team Meeting Talk: <i>UV and 24 μm Results for the Swift Expanded Sample – The Final Cut</i>	London, ON
July 2013	Compact Group Research Team Meeting Talk: <i>UV and 24 μm Results for the Swift Expanded Sample</i>	Charlottesville, VA

July 2012	Compact Group Research Team Meeting Talk: <i>Reconstructing the Redshift Survey Compact Group Catalog</i>	Charlottesville, VA
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POSTERS

May 2021	ISM 2021 Structure, characteristic scales, and star formation Poster: <i>Giant Star Forming Complexes in High-z Main Sequence Galaxy Analogues: The Internal Structure of Clumps in DYNAMO Galaxies</i>	Virtual
June 2020	EAS2020 Annual Meeting Poster: <i>Constraints on the Molecular Gas Mass Density Evolution over Cosmic Time from Serendipitous CO Detections in PHIBSS2</i>	Virtual

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. Value: 2 at \$2,000 per year.	Western University

PROFESSIONAL SERVICE AND MEMBERSHIP

Referee for	Astrophysical Journal
Reviews	ALMA Cycle 8 Distributed Peer-Review
Society Membership	American Astronomical Society
Committee Service	UMD Astronomy Department Graduate Student Council President, 2019–2021 UMD Astronomy Department Equity, Diversity, and Inclusion Committee Member, 2017–2020 Western University Graduate Student Council Member, 2014–2016 Western University President of Physics & Astronomy Student Association, 2013–2014 Western University Vice President of Physics & Astronomy Student Association, 2012–2013
Meetings Organized	Great Lakes Quasar Symposium – Local Organizing Committee, Western University, 2015 Collaboration Meeting Organizing Committee, Western University, 2014

STUDENTS MENTORED

Emma Kleiner Summer 2021 Summer Research Internship

TEACHING EXPERIENCE

Spring 2021 **Field Assistant for Eyes on the Sky: The Science of Birdwatching**
University of Maryland, College Park
Honors course, Dr. Derek Richardson

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 Lecturer <ul style="list-style-type: none">• Prepared Python Jupyter notebooks for students and instructors covering image processing basics, exercises, and introduction to <code>scikit-image</code>.• 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.	University of Maryland
2017–2020	Equity, Diversity, and Inclusion Committee Member <ul style="list-style-type: none">• 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.	University of Maryland
2017–2018	Junior Leader of Astronomy Gentleladies' Network <ul style="list-style-type: none">• Organized and hosted monthly meetings for women 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 women 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 women to socialize and freely discuss experiences, feelings, and thoughts.	University of Maryland

OUTREACH AND COMMUNITY EXPERIENCE

Feb–April 2021	Alternative Break Virtual Dialogues: Environmental Conservation <ul style="list-style-type: none">• participated in weekly dialogues on topics of environmental justice and sustainability• completed Chesapeake Bay Foundation advocacy training• participated in Chesapeake Bay Foundation advocacy activities	University of Maryland
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2020	<p>Skype a Scientist Volunteer</p> <ul style="list-style-type: none"> • Discussed astronomy grad school and career path, and astronomy concepts with grade 7 students in Florida • Talked about the solar system and planets with a family with two young children; aged 3 and 5 	Virtual
2012–2016	<p>Hume Cronyn Memorial Observatory Public Outreach</p> <ul style="list-style-type: none"> • Participated in observatory summer public night events, held every week from May to August by helping operate telescopes, manage crowds, answer visitor questions, and create and present public talks, including: <i>Small Bodies in the Solar System</i> (2016), <i>Ground Based Telescopes (but really) A Look at Radio Telescopes</i> (2015), and <i>The Perseid Meteor Shower; Plus: The Russian Meteor of February 2013</i> (2014) • Participated in organizing and running public events for the Transit of Mercury (2016) and the Transit of Venus (2012) by creating informational posters displayed in the observatory, answering visitor questions, directing visitors to multiple observing stations and activities, and distributing eclipse sunglasses 	Western University
2011–2013	<p>Physics and Astronomy Department Outreach</p> <ul style="list-style-type: none"> • Participated in yearly “Fall Preview Day” where high school students and parents visit departments across campus to learn about undergraduate programs by performing demonstrations of various physics experiments for visitors and discussing details of the Physics and Astronomy majors with interested students and parents • Presented an informational talk about the Physics and Astronomy program at Western University during a visit to a grade 12 classroom at Saunders High School (2013) 	Western University

PROFESSIONAL EXPERIENCE AND WORKSHOPS

Mar 2021	Science Talk '21	Virtual
Feb 2021	I Bird, I Vote Conservation Summit	Virtual, Audubon MD–DC
Feb 2021	AAAS Annual Meeting	Virtual
Feb 2021	MacSciComm2: Experimenting with SciComm	Virtual
Jan 2021	Ramon International SciComm Conference	Virtual
Jan 2021	MacSciComm1: Engaging Broad Audiences	Virtual
Mar 2019	ALMA Proposal Workshop	University of Maryland
May 2019	SOFIA Guest Observer	Palmdale, CA
May 2017	SOFIA Proposal Workshop	University of Maryland
July 2016	Scientific Collaboration Visit	Goddard Space Flight Center
Dec 2015	Canada and the Square Kilometre Array	Toronto, ON
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

LIST OF PUBLICATIONS

[Link to current publications in ADS](#)

Total Citations: 34 — h-index: 4

PUBLICATIONS IN PREPARATION

8. **Lenkić, L.**, Bolatto, A.D., Fisher, D.B., et al. in prep (to be submitted < 1 year)
Gas Law in High-z Main Sequence Galaxy Analogues: Resolved Measurements in DYNAMO Galaxies
7. Cooke, L., Levy, R.C., Bolatto, A.D., et al. in prep (to be submitted < 3 months)
Cuspy Dark Matter Density Profiles in Massive Dwarf Galaxies
6. **Lenkić, L.**, Bolatto, A.D., Fisher, D.B., Glazebrook, K., Obreschkow, D., Abraham, R., Tilahun, L. 2021, MNRAS submitted, “*Giant Star Forming Complexes in High-z Main Sequence Galaxy Analogues: The Internal Structure of Clumps in DYNAMO Galaxies*”

REFEREED PUBLICATIONS

5. 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 “*Outflows from Super Star Clusters in the Central Starburst of NGC 253*”
4. Girard, M., Fisher, D.B., Bolatto, A.D., Abraham, R., Bassett, R., Glazebrook, K., Herrera-Camus, R., Jiménez, E., **Lenkić, L.**, Obreschkow, D. 2021, [ApJ](#), **909**, 12 “*Systematic Difference Between Ionized and Molecular Gas Velocity Dispersion in $z \sim 1 - 2$ Disks and Local Analogues*”
3. **Lenkić, L.**, Bolatto, A.D., Förster Schreiber, N.M., Tacconi, L.J., Neri, R., Combes, F., Walter, F., García-Burillo, S., Genzel, R., Lutz, D., Cooper, M.C. 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., Desjardins, T.D., Walker, L.M., Johnson, K.E., Fedotov, K., Charlton, J., Hornschemeier, A.E., Durrell, P.R., Gronwall, C. 2016, [MNRAS](#), **459**, 2948 “*The Ultraviolet and Infrared Star Formation Rates of Compact Group Galaxies: An Expanded Sample*”
1. Tzanavaris, P., Hornschemeier, A.E., Gallagher, S.C., **Lenkić, L.**, Desjardins, T.D., Walker, L.M., Johnson, K.E., Mulchaey, J.S. 2016, [ApJ](#), **817**, 95 “*Exploring X-Ray Binary Populations in Compact Group Galaxies with Chandra*”