

# Laura Lenkić

PhD Candidate in Astronomy at University of Maryland, College Park

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## Research Interests

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- cosmic evolution of molecular gas content and star formation rate density
- structure and dynamics of star forming clumps in nearby galaxies
- neutral hydrogen gas and HII region properties of star forming clumps in nearby galaxies
- radio and infrared emission lines in nearby galaxies

## Education

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

## Professional Experience

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2016	<b>Research Assistant</b> <i>Supervisor:</i> Dr. Sarah Gallagher	University of Western Ontario
2013	<b>Research Assistant</b> <i>Supervisor:</i> Dr. Sarah Gallagher	University of Western Ontario
2011	<b>Research Assistant</b> <i>Supervisor:</i> Dr. Mike Kovacs	Cyclotron Laboratory, Lawson Health Research Institute

## Observational Experience

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<b>ALMA</b>	<b>PI</b>	<b>Cycle 7</b>	<i>Confirming Serendipitous High-z Sources in the PHIBSS2 Fields</i> Awarded: 8.7 hours
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	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
<b>NOEMA</b>	<b>PI</b>	Winter19	<i>Confirming Serendipitous High-z Sources in the PHIBSS2 Fields</i> Awarded: 6.0 hours
<b>SOFIA</b>	<b>PI</b>	Cycle 8	<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 (in review)	Cycle 9	<i>SOFIA GREAT Mapping of the LMC Northern Molecular Ridge</i> PI: A. Bolatto

## Teaching Experience

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Fall 2020	<b>Teaching Assistant for The Threat of Asteroid Impacts</b> University of Maryland, College Park Non-science major course, Dr. Jessica Sunshine
Spring 2020	<b>Teaching Assistant for Introduction to Astronomy</b> University of Maryland, College Park Non-science major course, Dr. Alberto Bolatto
Fall 2019	<b>Teaching Assistant for General Astronomy</b> University of Maryland, College Park Non-science major course, Dr. Drake Deming
Winter 2016	<b>Teaching Assistant for Introductory Physics I</b> University of Western Ontario B.Sc. course, Dr. Kanthi Kaluarachchi
	<b>Teaching Assistant for Exploring the Stars</b> Hume Cronyn Memorial Observatory, University of Western Ontario Community Outreach Program, Dr. Margaret Campbell-Brown

- Fall 2015      **Teaching Assistant for Physics for Engineering Students I**  
University of Western Ontario  
B.Eng. course, Dr. Silvia Mittler
- Teaching Assistant for General Astronomy**  
University of Western Ontario  
B.Sc. course, Dr. Jan Cami
- Teaching Assistant for Exploring the Stars**  
Hume Cronyn Memorial Observatory, University of Western Ontario  
Community Outreach Program, Dr. Margaret Campbell-Brown
- Summer 2015      **Teaching Assistant for Essentials of Modern Astronomy**  
University of Western Ontario  
B.Sc. course, Dr. Elizabeth A. Silber
- 2014 – 2015      **Teaching Assistant for Introductory Physics I**  
University of Western Ontario  
B.Sc. course, Dr. Kanthi Kaluarachchi

#### Scientific Presentations

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- 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      Lunch Talk at the Goddard Space Flight Center  
*Talk:* Results from a CO Line Search in the Plateau de Bure High-z Blue Sequence Survey Data  
Greenbelt, MD
- Sept 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

## Workshops

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|---------------|--|-------------------------------|
| March 2019    | ALMA Proposal Workshop                           | University of Maryland        |
| May 2017      | SOFIA Proposal Workshop                          | University of Maryland        |
| July 2016     | Collaboration Meeting                            | Goddard Space Flight Center   |
| December 2015 | Canada and the Square Kilometre Array            | Toronto, ON, Canada           |
| August 2015   | ALMA Summer School on Interferometric Techniques | DRAO                          |
| May 2015      | Statistics in Astronomy                          | Hamilton, ON, Canada          |
| May 2014      | Computing Skills Bootcamp                        | University of Western Ontario |
| August 2012   | Collaboration Meeting                            | Goddard Space Flight Center   |

## Awards

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|-------------|---|-------------------------------|
| 2016        | Gregor and Donat Wentzel Scholarship            | University of Maryland        |
| 2016        | IMPRS Studentship, <i>Declined</i>              | European Southern Observatory |
| 2015 – 2016 | Ontario Graduate Scholarship, <i>Waitlisted</i> | University of Western Ontario |
| 2014        | Western Graduate Scholarship, Astronomy         | University of Western Ontario |
| 2013 – 2014 | Dean's Honour List                              | University of Western Ontario |
| 2010        | Nortel Networks Excellence in Computer Science  | University of Western Ontario |

## Service and Leadership

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|-------------|---|------------------------|
| 2019 – 2021 | Graduate Student President                                | University of Maryland |
| 2020 – 2021 | Better Astronomy for the Next Generation Committee Member | University of Maryland |

2020	GRAD-MAP Winter Workshop Volunteer and Guest Lecturer	University of Maryland
	<i>Guest Lecture: Internship Application Writing &amp; Image Processing in Python</i>	
2020	Skype a Scientist Volunteer	Virtual
2017 – 2020	Equity, Diversity, and Inclusion Committee Member	University of Maryland
2017 – 2018	Junior Leader of Astronomy Genteladies' Network	University of Maryland
2016	Organizing Member of Transit of Mercury Public Event	University of Western Ontario
2016/07/02	Public Night Speaker	Hume Cronyn Memorial Observatory
	<i>Talk: Small Bodies in the Solar System</i>	
2015/07/11	Public Night Speaker	Hume Cronyn Memorial Observatory
	<i>Talk: Ground Based Telescopes (but really) A Look at Radio Telescopes</i>	
2014 – 2015	Public Night Volunteer	Hume Cronyn Memorial Observatory
2015	Local Organizing Committee	Great Lakes Quasar Symposium
2014 – 2016	Member of Graduate Student Council	University of Western Ontario
2014/08/09	Public Night Speaker	Hume Cronyn Memorial Observatory
	<i>Talk: The Perseid Meteor Shower; Plus: The Russian Meteor of February 2013</i>	
2014	Organizing Collaboration Meeting	University of Western Ontario
2013 – 2014	President of Physics & Astronomy Student Association	University of Western Ontario
2013/11/16	Fall Preview Day	University of Western Ontario
2012 – 2013	VP of Physics & Astronomy Student Association	University of Western Ontario
2013/02/06	High School Visits	Saunders High School
2012/11/10	Fall Preview Day	University of Western Ontario
2012	Organizing Member of Transit of Venus Public Event	University of Western Ontario
2011/11/19	Fall Preview Day	University of Western Ontario

## List of Publications

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[Link to current publications in ADS](#)

Total citations: 13 — h-index: 3

### Refereed Publications:

1. **Lenkić, L.**, 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.**, 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. **Lenkić, L.**, Bolatto, A.D., Fisher, D.B., et al. in prep (to be submitted < 1 month)  
*The Internal Structure of Star Forming Clumps in DYNAMO Galaxies*

2. Levy, R.C., Bolatto, A.D., Leroy, A.K., et al. in prep (to be submitted < 1 month)  
*Outflows from Super Star Clusters in the Central Starburst of NGC 253*
3. Girard, M., Fisher, D.B., Bolatto, A.D., et al. in prep (to be submitted < 1 month)  
*Systematic difference between ionized and molecular gas velocity dispersion in  $z \sim 1 - 2$  disks and local analogues*