

*Last modified September 6, 2018*

# Jessica Campbell

## Curriculum Vitae

Department of Astronomy & Astrophysics  
University of Toronto  
50 St. George Street, M5S 3H4  
Toronto, Ontario, CA  
AB 125

website: [astro.utoronto.ca/~campbell](http://astro.utoronto.ca/~campbell)  
LinkedIn: [linkedin.com/in/jessicac](https://www.linkedin.com/in/jessicac)  
email: [campbell@astro.utoronto.ca](mailto:campbell@astro.utoronto.ca)  
office: +1 (416) 978-3148

## Research Interests

---

galactic magnetism; polarization; radio astronomy; interstellar medium; dust extinction; early star formation

## Education

---

**Ph.D.**, Astronomy & Astrophysics 2016 – 2021  
Department of Astronomy & Astrophysics, University of Toronto, Toronto, ON  
Preliminary thesis entitled “*Polarimetry and 21 cm HI as a Probe of Galactic Magnetism*” supervised by Bryan Gaensler (UofT) and Susan Clark (IAS)

**H.B.Sc.**, Astronomy & Physics 2011 – 2016  
University of Toronto, Toronto, ON  
Undergraduate thesis entitled “*Using High-Resolution JCMT Imaging to Complement Herschel Observations in Regions of Massive Star Formation*” supervised by Peter Martin

## Honours and Awards

---

|                    |   |
|--------------------|---|
| <i>2017 – 2018</i> | <b>University of Toronto Fellowship</b> (\$11,742), UofT  |
| <i>2016 – 2017</i> | <b>University of Toronto Fellowship</b> (\$15,855), UofT  |
| <i>2016 – 2017</i> | <b>DAA Fellowship</b> (\$8,891), Department of Astronomy & Astrophysics, UofT   |
| <i>Summer 2016</i> | <b>CITA Undergraduate Summer Research Award</b> (\$8,400), Canadian Institute for Theoretical Astrophysics, UofT                |
| <i>Winter 2016</i> | <b>Reinhardt Fund Award</b> , Department of Astronomy & Astrophysics, UofT  |
| <i>Winter 2016</i> | <b>Conference Travel Grant</b> , Dunlap Institute for Astronomy & Astrophysics and Department of Astronomy & Astrophysics, UofT |
| <i>Summer 2015</i> | <b>Leiden/ESA Astrophysics Program for Summer Students Fellowship</b> , Leiden Observatory, Leiden University                   |
| <i>Summer 2014</i> | <b>Summer Undergraduate Research Program Award</b> (\$8,000), Dunlap Institute for Astronomy & Astrophysics, UofT               |
| <i>Summer 2013</i> | <b>Summer Undergraduate Research Program Award</b> (\$10,000), Dunlap Institute for Astronomy & Astrophysics, UofT              |

## Refereed Publications

---

**J. L. Campbell**, R. K. Friesen, P. G. Martin, P. Caselli, J. Kauffmann, & J. E. Pineda, “*Contraction Signatures Toward Dense Cores in the Perseus Molecular Cloud*”, 2016, ApJ, 819, 143C (17 pages)

## Conference Posters

---

**Campbell JL**, Friesen RF, Martin PG, Caselli P, Kauffmann J, Pineda JE. *Infall Signatures of Dense Cores in the Perseus Molecular Cloud*. Poster presented at the 3rd annual Canadian Conference for Undergraduate Women in Physics; 2016 Jan 8 – 10; Dalhousie, NS

## Research Experience

---

|                       |   |
|-----------------------|---|
| Graduate .....        |   |
| <i>2017 – present</i> | <b>Ph.D. Thesis</b> , Dunlap Institute for Astronomy & Astrophysics, UofT and IAS<br>Preliminary thesis entitled “ <i>Polarimetry and 21 cm HI as a Probe of Galactic Magnetism</i> ” supervised by Bryan Gaensler (UofT) and Susan Clark (IAS)                 |
| <i>Summer 2017</i>    | <b>Graduate Research Course</b> , Dunlap Institute for Astronomy & Astrophysics, UofT<br>“ <i>A Magneto-ionic Radio Polarization Study of the Orion-Eridanus Superbubble Region, Loop III and the Intermediate Velocity Arch</i> ” supervised by Bryan Gaensler |
| <i>2016 – 2017</i>    | <b>Graduate Research Course</b> , Dunlap Institute for Astronomy & Astrophysics, UofT<br>“ <i>Interstellar Extinction Towards OB Stars in the Molecular Interstellar Medium of W3</i> ” supervised by Peter Martin  |
| Undergraduate .....   |   |
| <i>Summer 2016</i>    | <b>Summer Undergraduate Researcher</b> , CITA, UofT<br>“ <i>Bright Infrared Stars in the W3 Giant Molecular Cloud</i> ” supervised by Peter Martin  |
| <i>Summer 2015</i>    | <b>Leiden/ESA Astrophysics Program for Summer Students</b> , Leiden Observatory, Leiden University<br>“ <i>Astrochemical Conditions of the Low-Mass Protostar IRAS 16293-2422 using ALMA</i> ” supervised by Mihkel Kama and Magnus Persson                     |
| <i>2014 – 2015</i>    | <b>Undergraduate Research Course</b> , Department of Astronomy & Astrophysics, UofT<br>“ <i>Using High-Resolution JCMT Imaging to Complement Herschel Observations in Regions of Massive Star Formation</i> ” supervised by Peter Martin                        |
| <i>Summer 2014</i>    | <b>Summer Undergraduate Research Program</b> , Dunlap Institute for Astronomy & Astrophysics, UofT<br>“ <i>Connecting Local Galaxies to Damped Lyman Alpha Systems via 21-cm</i> ” supervised by Brian Cherinka   |
| <i>2013 – 2014</i>    | <b>Undergraduate Research Course</b> , CITA, UofT<br>“ <i>Molecular Line Tracers of Kinematics in Star-Forming Regions</i> ” supervised by Rachel Friesen and Peter Martin  |
| <i>Summer 2013</i>    | <b>Summer Undergraduate Research Program</b> , Dunlap Institute for Astronomy & Astrophysics, UofT<br>“ <i>Contraction Signatures Toward Dense Cores in the Perseus Molecular Cloud</i> ” supervised by Rachel Friesen  |

## Teaching Assistantships

---

|                    |   |
|--------------------|---|
| <i>Fall 2018</i>   | <b>Great Moments in Astronomy</b> (AST210)  |
| <i>Winter 2018</i> | <b>Life on Other Worlds</b> (AST251)  |
| <i>Fall 2017</i>   | <b>Great Moments in Astronomy</b> (AST210)  |
| <i>Winter 2017</i> | <b>Stars and Galaxies</b> (AST201)  |
| <i>Fall 2016</i>   | <b>Stars and Galaxies</b> (AST101)  |
| <i>Winter 2016</i> | <b>The Sun and its Neighbours</b> (AST201)<br><b>Great Astronomical Issues</b> (PMU199) |
| <i>Winter 2015</i> | <b>Stars and Galaxies</b> (AST201)  |

## Student Mentorship

---

|                    |   |
|--------------------|---|
| <i>2018 – 2019</i> | <b>James Lane</b> (University of Victoria), incoming PhD student  |
| <i>2017 – 2018</i> | <b>Colleen Gilhuly</b> (Queen’s University), incoming PhD student<br><b>Victor Chan</b> (University of Toronto), incoming PhD student |

## Conferences

---

- 2018*    **The Milky Way in the Age of Gaia**, Orsay, France  
*2017*    **Python in Astronomy Conference**, Lorentz Center, Leiden University  
*2016*    **Conference for Undergraduate Women in Physics**, Dalhousie University, Nova Scotia

## Professional Service

---

- 2018 – 2019*    **Dunlap Management Committee Student Representative**, Dunlap Institute for Astronomy & Astrophysics, UofT  
*2017 – 2018*    **Values Statement Committee**, Department of Astronomy & Astrophysics, UofT  
*2017 – 2018*    **Indigenous Astronomy Workshop Committee**, Department of Astronomy & Astrophysics, UofT  
*2016 – 2018*    **CUPE Local 3902 Unit 1 Representative**, Graduate Astronomy Students Association, UofT  
*2015 – 2018*    **Dunlap Diversity Committee**, Dunlap Institute for Astronomy & Astrophysics, UofT  
*Summer 2017*    **Dunlap Summer School Admissions Committee**, Dunlap Institute for Astronomy & Astrophysics, UofT  
*2017 – 2018*    **Mediation Committee**, Graduate Astronomy Students Association, UofT  
*2017 – 2018*    **Graduate Course Committee**, Graduate Astronomy Students Association, UofT  
*2017 – 2018*    **Mental Health Committee**, Graduate Astronomy Students Association, UofT  
*2016 – 2017*    **Dunlap Associate**, Dunlap Institute for Astronomy & Astrophysics, UofT

## Professional Development

---

- 2017*            **GMIMS Science Workshop**, Dominion Radio Astrophysical Observatory, Penticton  
                  **ALMA Community Day Event**, National Radio Astronomy Observatory and Department of Astronomy & Astrophysics, UofT  
*2017*            **Dunlap Annual Retreat**, Dunlap Institute for Astronomy & Astrophysics, UofT  
*2016*            **Dunlap Annual Retreat**, Dunlap Institute for Astronomy & Astrophysics, UofT  
*2016*            **CUPE Unit 1 Local 3902 Stewards' Training**, CUPE, UofT  
                  *Modules include:*  
                  Handling Grievances  
                  What's our Duty?  
                  Building Your Case  
                  Mobilizing Workers  
                  Notetaking  
                  Resolving Grievances Without Going to Arbitration  
*2015 – 2016*    **Teaching Assistant Training Program**, UofT  
                  *Courses include:*  
                  Active Learning in Discussion-based Classrooms  
                  PowerPoint and Beyond – Using Visual Aids in the Classroom

## Media Coverage

---

- 2017*    **Road Trip! U of T Students and Faculty Chase Total Solar Eclipse**, *UofT News*, University of Toronto ([link to article](#))

## Public Outreach

---

|                    |   |
|--------------------|---|
| <i>2013 – 2017</i> | <b>AstroTours Volunteer</b> , UofT  |
| <i>2015 – 2016</i> | <b>Director of Outreach</b> , Astronomy and Space Exploration Society, UofT |
| <i>Fall 2015</i>   | <b>Fall Campus Day</b> , UofT   |
| <i>2013 – 2014</i> | <b>Director of Outreach</b> , Astronomy and Space Exploration Society, UofT |
| <i>Summer 2015</i> | <b>Science Rendezvous Solar Telescope Operator</b> , UofT                   |
| <i>Summer 2014</i> | <b>Science Rendezvous Solar Telescope Operator</b> , UofT                   |
| <i>2013 – 2014</i> | <b>Current in Space News Producer</b> , The Star Spot podcast               |
| <i>Summer 2013</i> | <b>Sidewalk Astronomy Solar Telescope Operator</b> , UofT                   |