

*Last modified December 1, 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)  
GitHub: [github.com/astrosica](https://github.com/astrosica)  
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

---

polarization; radio astronomy; galactic magnetism; 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>2018 – 2019</i>	<b>University of Toronto Fellowship</b> (\$11,742), UofT
<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)

## 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
	<b>Victor Chan</b> (University of Toronto), incoming PhD student

## Research Experience

---

Graduate .....	
<i>2017 – present</i>	<b>Ph.D. Thesis</b> , Dunlap Institute for Astronomy & Astrophysics, UofT and IAS 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 “ <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 “ <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 “ <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 “ <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 “ <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 “ <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 “ <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 “ <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) <b>Great Astronomical Issues</b> (PMU199)
<i>Winter 2015</i>	<b>Stars and Galaxies</b> (AST201)

## Conferences

---

<i>2018</i>	<b>The Milky Way in the Age of Gaia</b> , Institut d’Astrophysique Spatiale, France
<i>2017</i>	<b>GMIMS Science Workshop</b> , Dominion Radio Astrophysical Observatory, Penticton
<i>2017</i>	<b>Python in Astronomy Conference</b> , Lorentz Center, Leiden University
<i>2016</i>	<b>Canadian Conference for Undergraduate Women in Physics</b> , Dalhousie University, Nova Scotia

## Conference Presentations

---

- Talks .....  
2018 **Radio Polarimetry and 21 cm HI as a Probe of Galactic Magnetism**  
Milky Way in the Age of GAIA; Institut d'Astrophysique Spatiale, France
- Posters .....  
2018 **Infall Signatures of Dense Cores in the Perseus Molecular Cloud**  
Canadian 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

---

- 2018 – 2019 **TATP: Teaching Fundamentals Certificate Program (in progress)**, UofT  
*Courses include:*  
Creating a Culture of Accessibility  
Teaching Dossiers and Statements of Teaching Philosophy  
Women in STEM: Teaching and Learning Roundtable
- 2017 **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
- 2015 – 2016 **Teaching Assistant Training Program (TATP)**, 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