

# Pauline Barmby

November 2016

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## Education

PhD, Astronomy	Harvard University	2001
AM, Astronomy	Harvard University	1998
B.Sc.(Hons), Physics & Astronomy	University of British Columbia	1995

## Positions Held

Associate Dean, Graduate & Postdoctoral Studies	Faculty of Science, Western University	2015–present
Associate Professor	Department of Physics & Astronomy, Western University	2013–present
Assistant Professor	Department of Physics & Astronomy, Western University	2007–2013
Astrophysicist	Smithsonian Astrophysical Observatory	2001–2007

## Research Interests

Observational extragalactic astronomy:

- galaxy formation
- stellar populations
- extragalactic star clusters
- clusters of galaxies
- active galactic nuclei

Astroinformatics: data processing and knowledge discovery in astrophysical data

## Research Grants

Assembling the Big Picture of Nearby Galaxies	\$135k	NSERC Discovery Grant	2013–2018
Far Out: Tracing the Mass in M31	\$16k	Spitzer Science Center	2012
Astroinformatics	\$84k	Western University ADF	2012–2014
Star Formation Histories of Nearby Galaxies	\$125k	NSERC Discovery Grant	2008–2013
Star Formation Histories of Nearby Galaxies	\$140k	Ontario Early Researcher Award	2008–2013
The Local Group Dwarf Spheroidals	\$55k	Spitzer Science Center	2008–2011
Old and New Stars Revealed by Infrared Imaging	\$4k	Western University ADF	2008–2009
Star Formation and Star Clusters in Nearby Galaxies	\$60k	NSERC Discovery Grant	2007–2008
Mass Loss in Cepheid Variables (Co-I)	\$28k	Spitzer Science Center	2006–2009
A Complete Map of M31 with IRAC	\$74k	Spitzer Science Center	2005–2007
Imaging of the Extended Groth Strip (Co-I)	\$7k	Chandra X-ray Center	2004–2006
The Most Massive Star Clusters (Co-I)	\$18k	Space Telescope Science Institute	2004–2006
Stellar Populations in M101 (Co-I)	\$16k	Space Telescope Science Institute	2002–2005

## Teaching Experience

### Courses taught at Western University

Astronomy 9610	Fundamentals of Modern Astrophysics (c)	9 grads	2014
Astronomy 2022	The Origin of the Universe	190 undergrads	
Physics 1402	Physics for Engineers II	385 undergrads	2013–14
Astronomy 9028	Data and Error Analysis (c)	12 grads	
Astronomy 9610	Fundamentals of Modern Astrophysics (c)	10 grads	
Astronomy 9612	Fundamentals of Computation (c)	12 grads	2012–13
Physics 1402	Physics for Engineers II	370 undergrads	
Astronomy 9610	Fundamentals of Modern Astrophysics (c)	7 grads	
Astronomy 1021	General Astronomy	85 undergrads	2011–12
Physics 1402	Physics for Engineers	180 undergrads	
Astronomy 9610	Fundamentals of Modern Astrophysics (c)	7 grads	
Astronomy 1021	General Astronomy	150 undergrads	2010–11
Astronomy 9610	Introduction to Astrophysics (t)	13 grads	
Physics 1024	Introductory Physics (c)	34 undergrads	2009–10
Astronomy 4602	Gravitational Astrophysics & Cosmology	10 undergrads	
Astronomy 1021	General Astronomy	135 undergrads	
Astronomy 9620	Galactic and Extragalactic IR Astronomy (c)	6 grads	
Astronomy 1021	General Astronomy	135 undergrads	2008–09
Physics 9028	Data and Error Analysis (c)	11 grads	
Astronomy 96xx	Extragalactic Star Formation (reading course)	1 grad	2007–08
Astronomy 4602	Gravitational Astrophysics & Cosmology	10 undergrads	
Astronomy 9620	Galactic and Extragalactic IR Astronomy (c)	6 grads	
Calculus 1000	Calculus I	90 undergrads	

(c) = co-instructor, (t)=team-taught

### Computing workshops taught

Western University	Software Carpentry	2016
University of Toronto	Software Carpentry	2015
Western University	Software Carpentry	2015
American Astronomical Society Meeting	Software Carpentry	2015
University of Toronto	Software Carpentry	2014
Mozilla Toronto	Software Carpentry	2014
Western University	Western science bootcamp	2014

### Student advisory duties

Faculty advisor	Western University Summer Academic Orientation	2012–2015
Member	Western University student advisory committees	2007–present
Examiner & chair	Western University MSc and PhD committees	2008–present
Member	McMaster University PhD student committee	2009–2012
Member	Harvard University student thesis committees	2005–2008
Supervisor	Smithsonian Research Experiences for Undergraduates student	2004

**Student and postdoctoral supervision at Western University**

Postdoctoral fellows	S. Lianou	2012–2015
	M. Azimlu	2009–2011
PhD students	R. Arnason	2014–present
	S. Rahmani	2012–2016
	N. Vulic (co-supervised with S. Gallagher)	2012–2016
	R. Marciniak	2009–2010
MSc students	M. Rafiei Ravandi	2013–2015
	D. Hemachandra (co-supervised with E. Peeters)	2012–2014
	M. Croley	2011–2013
	G. Farhani	2011–2012
	J. Agar	2010–2012
	N. Vulic (co-supervised with S. Gallagher)	2010–2012
	H. Shiu	2009–2011
	R. Marciniak	2008–2009
	D. Valenzo	2007
	S. Elkerton	2016–2017
BSc students	A. Kiar	2014–present
	A. Hidalgo Valadez	2014
	G. Keenleyside	2013–2014
	R. Odell	2012
	F. Jalilian	2010
	M. Gracie	2010
	H. Shiu	2009
	V. Lyttle	2008
Research assistants	J. Taylor	2013
Work-study students	W. Ahmed	2015–2016
	E. Matlovich	2013
	N. Hasan	2008

**Fellowships and Awards**

Florence Bucke Prize	Western Faculty of Science	2014
Outreach Award (to entire Astronomy group)	Western Faculty of Science	2010
Group Achievement Award (to Spitzer Space Telescope Payload Team)	NASA	2004
Graduate Teaching Award	Harvard University	1997, 1999
Margaret Weyerhauser Jewitt Memorial Fellowship	Harvard University	1996
Canada Scholar	Government of Canada	1990–1995

## Professional and Volunteer Activities

### Committee & society memberships

Member	Integrated Science program committee	Western Faculty of Science	2014
Member	workload committee	Western Physics & Astronomy	2014
Member	graduate affairs committee	Western Physics & Astronomy	2013–14
Member	research & awards committee	Western Physics & Astronomy	2013–14
Member	colloquium committee	Western Physics & Astronomy	2012–13
Member	first-year operating committee	Western Faculty of Engineering	2011–14
Member	Appointments committee	Western Physics & Astronomy	2011–12
Chair	Outreach committee	Western Physics & Astronomy	2011–13
Member	NSERC USRA selection committee	Western Faculty of Science	2008–14
Member	Outreach committee	Western Physics & Astronomy	2007–13
Member	Dunlap Institute review committee		2016–present
Chair	Software/Data Carpentry Code of Conduct Committee		2016–present
Member	Membership committee, International Astrostatistics Association		2016–present
Director-at-large	Canadian Astronomical Society (CASCA)		2013–15
Member	CASCA Diversity and Inclusivity Committee		2015–17
Member	CASCA Long Range Plan Implementation Committee		2014–15
Member	scientific organizing committee (SOC), “Python in Astronomy”		2014–15
Member	Canada-France-Hawaii Telescope Science Advisory Council		2014–15
Member	Users’ Committee, Gemini Observatory		2013–15
Chair	CASCA Ground-based Astronomy Committee		2013–15
Member	CASCA Ground-based Astronomy Committee		2012–13
Chair	SOC, Gemini Science Conference		2012
Member	Canadian Gemini Science Committee		2011–13
Member	local organizing committee, CASCA 2011 general meeting		2010–11
Chair	SOC, CASCA 2011 general meeting		2010–11
Member	SOC, “The Evolving ISM in the Milky Way and Nearby Galaxies”		2007
Member	<i>Spitzer Space Telescope</i> Users’ Panel		2004–07
Member	American Association of Physics Teachers		2011–present
Member	International Astronomical Union		2009–present
Associate	COSPAR		2008–present
Member	Canadian Astronomical Society		2001–present
Member	American Astronomical Society		1997–present

### Consulting

Textbook reviewer	McGraw-Hill	2013
Textbook reviewer	Cambridge University Press, Nelson Canada	2012
Test bank author	Nelson Canada	2011–2012
Textbook reviewer	W.W. Norton, Cambridge University Press	2010
Textbook reviewer	Cambridge University Press, W.H. Freeman	2009

**Peer review**

Reviewer	NASA Astrophysics Data Analysis Program	2015
Panel member	Ontario Early Researcher Awards	2014
Reviewer	CEA Eurotalents Program	2014
Reviewer	Research Foundation – Flanders	2013
Reviewer	NASA Postdoctoral Program	2013
Referee	NSERC Discovery Grants	2011, 2013, 2015
Reviewer & deputy panel chair	<i>Chandra X-ray Observatory</i> observing proposal review	2011
Member	<i>Spitzer Space Telescope</i> observing proposal review	2011, 2016
Member & panel chair	Canadian Time Allocation Committee (CFHT/Gemini/ JCMT)	2010–2011
Member	Canadian Time Allocation Committee	2008–2011
Reviewer & deputy panel chair	<i>Spitzer Space Telescope</i> observing proposal review	2008
Referee	Gemini and Canada-France-Hawaii Telescope proposals	2007–2008
Panel member	<i>Spitzer Space Telescope</i> observing proposal review	2006
Member	National Science Foundation grant peer review panel	2005
Member	NASA Office of Space Science grant peer review panel	2002

Referee, *The Astrophysical Journal*, *The Astronomical Journal*, *Astronomy & Astrophysics*, *Publications of the Astronomical Society of the Pacific*, *Monthly Notices of the Royal Astronomical Society*, 2001–present

**Public education & outreach**

Speaker	Royal Astronomical Society of Canada London Centre	2016
Speaker	Western Retured Academics Group	2016
Speaker	Sunday Assembly, London	2015
Speaker	David Dunlap Observatory, Toronto	2015
Blogger	<i>Science Borealis</i> group	2015–present
Scientist-in-Residence	London Regional Children’s Museum	2012
Speaker	Western “Science Here and Now” series	2012
Organizer	Mars Science Laboratory landing event	2012
Speaker	Royal Astronomical Society of Canada London Centre	2012
Presenter	London District Science Fair	2010–2012, 2014, 2015
Speaker	Western University “Nobel Prize” series	2011
Speaker	Fraser Valley Astronomers Society	2009
Speaker	Jack Chambers Public School	2009–14
Podcaster	“365 Days of Astronomy”	2009, 2012
Speaker	Cronyn Observatory public “Observatory Night”	2008–present
Speaker	“Virtual Researcher on Call”	2008–present
Speaker	“Women in Research” , Museum of Science, Boston	2007
Speaker	Center for Astrophysics public “Observatory Night”	2007
Volunteer	Museum of Science, Boston	2003–2004
Volunteer	The MAD Scientist Network ‘Ask-A-Scientist’ website	1997–2004
Volunteer	RFB&D — audio recording of academic textbooks	1996–2004

**Media interviews**

AM980 radio, Western Gazette	2015
<i>Star Spot</i> podcast, Western News	2014
Rogers <i>Western Revealed</i> , <i>York Universe</i> podcast	2013
CIXX radio, <i>Earth</i> magazine, The Weather Network, AM980 radio, Western Gazette, CHRW, The Londoner, Metro, CJBK, Blackburn Radio, The Motts, Mohawk College News, London Free Press, CBC Radio/Ontario Morning, The Globe and Mail	2012
CIXX radio, Canadian Press	2011
<i>Bridges</i> career planning website, Asuza Pacific University journalism students	2010
Western University, Massachusetts Institute of Technology journalism students	2009
WDEL radio, Colombian National Public radio	2009
WUML “Sunrise” radio program	2007

**Colloquia and Seminars**

Western University (Science of Information)	March 2016
University of Victoria	July 2015
NRC-Herzberg Astrophysics	July 2015
St. Mary’s University	March 2013
Western University (Planetary Science)	March 2013
Western University	September 2012
Swinburne University of Technology	May 2012
University of Toledo	March 2012
Western Washington University	April 2011
University of Rochester	March 2011
McMaster University	February 2010
Royal Military College of Canada	January 2010
University of Alberta	January 2010
University of Toronto	October 2009
Michigan State University	September 2009
Queen’s University	March 2009
Harvard-Smithsonian Center for Astrophysics	February 2009
Trent University	January 2009
University of Minnesota	April 2008
Herzberg Institute of Astrophysics	February 2008
University of Waterloo	January 2008
Western University (undergraduate seminar)	2008, 2009, 2014
Harvard-Smithsonian Center for Astrophysics	November 2006
Wesleyan University	December 2004
University of Rochester	December 2004
Harvard-Smithsonian Center for Astrophysics	September 2001, March 2003
McMaster University	March 2001
European Southern Observatory	December 2000
Carnegie Observatories	November 2000
University of California at Berkeley	November 2000
American Museum of Natural History	October 2000
Dominion Astrophysical Observatory	August 2000

## Publications

*Author names in italics are Western University trainees.* DOIs are linked to papers.