

# Anna Ho

ah@astro.caltech.edu

Caltech, MC 249-17, 1200 E. California Blvd., Pasadena CA 91125

## EDUCATION

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### California Institute of Technology (Caltech), Pasadena CA

- Ph.D., Astrophysics, Advisor: Prof. Shrinivas Kulkarni expected *June 2020*
- M.S., Astrophysics *June 2017*

### Massachusetts Institute of Technology (MIT), Cambridge MA

- B.S., Physics *June 2014*

## FELLOWSHIPS AND AWARDS

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- NSF Graduate Research Fellowship *2014-19*
- Garmire Prize, Caltech *2017*
- Fulbright Scholarship *2014-15*
- Ida M. Green Fellowship, MIT *2014*
- Ford Foundation Fellowship, Honorable Mention *2014*
- Karl Taylor Compton Prize, MIT *2014*
- Chambliss Astronomy Achievement Student Awards, Honorable Mention *2014*
- First Place, Dewitt Wallace Prize for Science Writing for the Public, MIT *2013*

## INVITED AND CONTRIBUTED TALKS

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- “Dirty Fireballs and Orphan Afterglows: A Broader Landscape of Relativistic Explosions with ZTF”
- (Contributed) GROWTH Annual Meeting, Milwaukee, WI *October 2017*
- “*The Cannon*: Data-Driven Spectral Modeling in the Era of Large Stellar Surveys”
- (Contributed) National Radio Astronomy Observatory Lunch Seminar *June 2016*  
National Radio Astronomy Observatory, Socorro, NM
  - (Invited) Gemini Observatory Workshop, La Serena, Chile *March 2016*
- “Using *The Cannon* to Exploit the Overlap Between Kepler & APOGEE”
- (Contributed) Boutiques & Experiments Conference, Caltech, Pasadena, CA *August 2015*
- “Survey Cross-Calibration Using The Cannon: APOGEE Labels from LAMOST Spectra”
- (Contributed) SDSS-IV Collaboration Meeting *July 2015*  
Instituto de Física Teórica IFT UAM-CSIC, Madrid, Spain
  - (Contributed) The Local Group Astrostatistics Conference *June 2015*  
University of Michigan, Ann Arbor, USA
- “The Cannon: A New Data-Driven Method for Retrieving Stellar Parameters and Abundances”
- (Contributed) MPIA-AIP Milky Way & Local Volume Meeting *November 2014*  
Institute for Astrophysics Potsdam (AIP), Potsdam, Germany

“Rotation Measures of Globular Cluster Pulsars as a Unique Probe of the Galactic Magnetic Field”

- (Contributed) Max Planck Institute for Astronomy, Heidelberg, Germany *October 2014*
- (Contributed) National Radio Astronomy Observatory, Charlottesville, VA *August 2013*

“Studies of Millisecond Pulsars in the Globular Cluster Terzan 5”

- (Contributed) National Radio Astronomy Observatory, Charlottesville, VA *August 2012*

## POSTERS

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“Survey Cross-Calibration Using *The Cannon*: LAMOST Labels on the APOGEE scale”

- Frontiers of Stellar Spectroscopy in the Local Group and Beyond, *April 2015*  
Max Planck Institute for Astronomy, Heidelberg, Germany

“Rotation Measures of Globular Cluster Pulsars as a Unique Probe of the Galactic Magnetic Field”

- American Astronomical Society 223rd Meeting, National Harbor, MD *January 2014*
- Conference of Research Experiences for Undergraduates, *October 2013*  
Council on Undergraduate Research, Arlington, VA

“A New Method for Measuring the Rotation Measures of Millisecond Pulsars in the Globular Cluster Terzan 5”

- American Astronomical Society 221st Meeting, Long Beach, CA *January 2013*

## WORKSHOPS

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- *Attendee*, LSST Winter School: Machine Learning, Data Visualization, Model Fitting  
Caltech, Pasadena CA *January 2017*
- *Attendee*, NRAO Summer School, Socorro, NM *June 2016*
- *Invited Instructor*, Gemini Observatory Workshop: *March 2016*  
Data Driven Modeling of Spectra using *The Cannon*, Gemini Observatory, La Serena, Chile

## ACCEPTED PROPOSALS, TELESCOPE TIME

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### ALMA

- PI: “AT2018cow: the poster-child relativistic explosion  
for high-frequency time-domain astronomy”  
2.6 hours at highest priority *June 2018*

### SMA

- PI: “SMA Monitoring of the Rare Relativistic Supernova AT2018cow”  
80 hours *June 2018*

### VLBA

- PI: “Confirmation of superluminal motion for  
rare relativistic supernova AT2018cow”  
12 hours at Priority A *June 2018*

### EVLA

- PI: “MAXI 170808A, A Short Soft X-ray Transient”  
3 hours of DDT time at Priority C *August 2017*

- PI: “A Short Soft Transient from MAXI: Detection of a Dirty Fireball?”  
3 hours of DDT time at Priority C
- PI: “Monitoring the Pulsed and Continuum Fluxes of Eclipsing Binary Pulsar Terzan 5A”  
4 hours Priority B

*May 2017*

*February 2014*

## TEACHING, PUBLIC OUTREACH, SCIENCE POLICY

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### Science and Engineering Policy At Caltech

Fall 2017-present

*Vice President*

*Pasadena, CA*

- Organize events and trips, lead lunch discussions on current events in science policy

### Caltech Astronomy Outreach

Feb 2015-present

*Co-Coordinator*

*Pasadena, CA*

- Run outreach evenings, give public talks, answer visitors' questions, facilitate telescope viewing

### International Summer Symposium on Science and World Affairs

Summer 2017

*Participant and Speaker*

*Darmstadt, Germany*

- Selected to attend this annual international symposium
- Gave a talk entitled “Towards a Framework for Space Traffic Control”

### TA for Undergraduate Course, The Evolving Universe

Spring 2016

- Recognized as an “outstanding TA” by the Caltech registrar: “Anna is a G3 in Astrophysics. Students described Anna as caring, considerate, and committed ... as well as being extremely effective at explaining and summarizing the course material. The sentiments in this quote were echoed by several other students: “She was consistently well-prepared for section, gave really good notes, and did a really good job of explaining potentially confusing material and clarifying misunderstandings. She was very in-tune with the difficulties students were having and did a very good job of resolving those difficulties.”

### TA for Graduate Course, Radio Astronomy

Winter Term 2015-16

- Graded problem sets, held office hours

### TA for Undergraduate Course, Basic Astronomy and the Galaxy

Fall 2015

- Graded problem sets, held office hours

### Teacher, Institute for Educational Advancement

Fall 2016

- Designed and taught a nine-week course on multiwavelength astronomy for gifted 7-12 year olds

### Haus der Astronomie: Center for Astronomy Education and Outreach Sept 2014-July 2015

- Organized and taught a cosmology workshop for high school students
- Wrote a press release for the Max Planck Institute for Astronomy
- Wrote a blog post for the UniverseToday news site

### Congressional Visits Day

March 2014

- Attended briefings about the federal budget process
- Set up and led meetings with Congressional Staff to advocate for federal funding for scientific research

### AAS Astronomy Ambassadors Workshop

January 2014

*American Astronomical Society 223rd Meeting*

*National Harbor, MD*

- Selected for a two-day workshop on doing effective public outreach

**MIT Educational Studies Program**

Fall 2010-Spring 2014

*Teacher*

*Cambridge, MA*

- Designed and taught 12 different science classes for over 500 middle- and high-school students

**MIT Admissions Blogger**

Fall 2010-Spring 2014

*MIT Admissions Office*

*Cambridge, MA*

- Wrote weekly entries about MIT life, read by over 7,000 people daily
- Corresponded with prospective students through e-mail and webcasts

**Course Assistant**

Spring 2013

*MIT Physics Department*

*Cambridge, MA*

- Wrote lecture notes in LaTeX for the undergraduate Quantum I and Quantum II courses
- Graded weekly problem sets for the undergraduate Quantum I course

**McCormick Public Observatory**

Summer 2012, Summer 2013

*Public speaker and volunteer*

*Charlottesville, VA*

- Organized a volunteering program for National Radio Astronomy Observatory summer students
- Gave regular public talks at the observatory