

WEN-FAI FONG

CURRICULUM VITAE

University of Arizona
Steward Observatory, Rm. 310
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RESEARCH INTERESTS

I utilize observations across the electromagnetic spectrum to study the connections between gamma-ray bursts, compact objects, gravitational waves, and other explosive transients.

EMPLOYMENT

Einstein Postdoctoral Fellow, University of Arizona, Tucson, AZ	2014-present
Graduate Research Fellow, Harvard University, Cambridge, MA	2008-2014

EDUCATION

Harvard University, Cambridge, MA	
Ph.D., Astronomy and Astrophysics	2014
<i>"Unveiling the Progenitors of Short-duration Gamma-ray Bursts"</i>	
A.M., Astronomy and Astrophysics	2010
Advisor: Edo Berger	
Massachusetts Institute of Technology, Cambridge, MA	
S.B., Physics	2008
S.B., Biology	
<i>"Extrasolar planet transit photometry at Wallace Astrophysical Observatory"</i>	
Advisor: James L. Elliot	

AWARDS & HONORS

American Physical Society Outstanding Doctoral Thesis Award in Astrophysics	2016
Research Corporation for Science Advancement Scialog Fellow	2016
Einstein Postdoctoral Fellowship, NASA	2014-2017
Edward L. Fireman Fellowship, Harvard Department of Astronomy	2014
Harvard Certificate of Distinction in Teaching	2013
Conference Poster Honorable Mention at GWPAW, Milwaukee, WI	2012

PRINCIPAL INVESTIGATOR TELESCOPE PROPOSALS & GRANTS

Chandra X-ray Observatory Cycle 18, 75 ksec (expected budget of \$48K)
"Tracking the Evolution of an X-ray Counterpart to a Gravitational Wave Event"

Hubble Space Telescope Cycle 24, 12 orbits (awarded \$77K)

"Underlying Hosts or Highly-Kicked? Determining the Nature of Host-less Short Gamma-ray Bursts with HST"

XMM-Newton AO-15, 89 ksec (awarded \$57K)

"Measuring the Explosion Geometry of Short GRBs: Implications for Energetics & Rates"

University of Arizona Observatories (UKIRT, MMT, LBT, Magellan) 2016B, 6 nights

"Target-of-Opportunity Programs at Steward: Rapid-response Observations of GRBs"

"Connecting Explosion Properties to Environments: The Host Galaxies of GRBs"

Past PI Awarded Time:

Chandra X-ray Observatory: Cycle 15, (60 ksec, awarded \$48K)

University of Arizona Observatories: 2014-2016, awarded 20 nights

Karl G. Jansky Very Large Array: 2013-2015, awarded 31 hours

XMM-Newton: AO-12 (86 ksec), AO-13 (89 ksec)

OBSERVING EXPERIENCE

Cerro Tololo Observatory, Victor Blanco 4-m (DECam)

Gemini-North and South 8-m (GMOS); remote target-of-opportunity observing

Large Binocular Telescope, 11.8-m (LBC, MODS)

Las Campanas Observatory, Magellan/Baade 6.5-m (FourStar, IMACS, FIRE)

Las Campanas Observatory, Magellan/Clay 6.5-m (LDSS3, MagE, MEGACAM)

Mount Hopkins Observatory, MMT 6.5-m (Blue-Channel Spectrograph)

University of Arizona, Kuiper 61-in (Mont4K)

COMPUTER SKILLS

Data reduction and processing of radio, optical, infrared, and X-ray data. Includes data taken with HST, VLA, Swift/XRT, Swift/UVOT, Chandra, XMM-Newton, Gemini (GMOS, NIRI), Magellan (LDSS3, IMACS, MegaCam, FourStar), MMT (Cam), LBT (MODS, LBC), UKIRT (WFCAM, UFTI).

Experience with software packages IRAF, Matlab, ds9, AIPS, CIAO, HEASoft.

PROFESSIONAL SERVICE

NASA STAR-X mission gravitational wave science lead 2016-

Reviewer, NASA Postdoctoral Fellowships 2015-

"Maximizing Science in the Era of LSST" Transients gravitational wave science lead 2015-

LSST transients and variable stars team member 2014-

Referee, ApJ, ApJL, A&A 2011-

PREVIOUS RESEARCH EXPERIENCE

Senior Thesis Research Fellow, Dept. of Earth & Planetary Sciences, MIT 2007-2008
Advisor: James L. Elliot

Summer Research Fellow, Dept. of Astronomy, Harvard University Summer 2006
Advisor: Julia C. Lee

Undergraduate Research Fellow, Kavli Institute for Astro. & Space Research, MIT 2005-2006
Advisor: Saul Rappaport

Summer Research Fellow, Dept. of Physics & Astronomy, Univ. of Rochester Summer 2005
Advisors: Eric G. Blackman & Chuang Ren

LEADERSHIP & OUTREACH

University of Arizona Astronomy Mentoring Program Coordinator 2014-
▪ Develop and organize mentorship program for students and post-docs.

TIMESTEP Mentor 2014-
▪ Provide career guidance for University of Arizona STEM undergraduates in minority groups. Program led by Prof. Gurtina Besla.

MIT Educational Counselor 2010-
▪ Conduct interviews with prospective students for MIT undergraduate admissions.

Tucson Women in Astronomy Co-coordinator 2015-2016
▪ Organize events for women ranging from the undergraduate to faculty level.

Harvard Astronomy "Career Advice Hours" Coordinator 2012-2014
▪ Organized career-oriented faculty presentations for students and post-docs.

Harvard Astronomy Mentorship Program Founder and Coordinator 2011-2014
▪ Created mentorship program focused on the personal and career advancement of Harvard astronomy graduate students. Program includes peer and graduate student-faculty mentoring. Awarded \$1K from Harvard University.

Cambridge Public Library Literacy Project Volunteer 2012-2014
▪ Teach English literacy and computer skills to under-privileged communities.

CfA Women in Science Chat Co-coordinator 2012-2013

Harvard Graduate Student Women in Science Mentor 2010-2011

Volunteer reader for a blind astronomer 2010-2011

TEACHING EXPERIENCE

Harvard University Teaching Fellow Fall 2012

“Galactic and Extragalactic Astronomy” (ASTRON-17), Prof. Daniel Eisenstein

- Designed, wrote, and tested optical galaxy cluster lab (15 pp.) for class.
- Led homework sections, lab sessions, and graded for 6 undergraduates.

Harvard Summer School Teaching Fellow Summer 2012

“Fundamentals of Contemporary Astronomy” (ASTRON S-35), Dr. Rosanne DiStefano

- Led sections, graded for 60 high school students.
- Helped design and lead twice-weekly observing sessions with 16-in Clay telescope.

Harvard University Teaching Fellow Spring 2011

“The Energetic Universe” (SPU-19), Prof. Robert P. Kirshner

- Led sections, graded problem sets for 31 undergraduates. Led observing sessions.

Harvard University Head Teaching Fellow Spring 2010

“The Energetic Universe” (SA-35), Prof. Robert P. Kirshner

- Acted as liaison between course director, teaching fellows, and administration.
- Led course duties such as grade compilation, scheduling, section assignments for over 100 students.

PUBLICATIONS

Refereed: **9 first-author**; 35 co-author (see publication record).

Non-refereed: Contributor to GRB Coordinates Network Circulars, Astronomer’s Telegrams

INVITED TALKS (29)

Review talk at Fifty-One Erg 2017, Corvallis, OR	Spring 2017
Colloquium at Penn State University, State College, PA	Spring 2017
Colloquium at University of Amsterdam, Netherlands	Spring 2017
Review talk at JSI workshop, Annapolis, MD	Nov 2016
Colloquium at Physics Dept, University of Arizona, Tucson, AZ	Sep 2016
Talk at “Fellows at the Frontiers” conference, Evanston, IL	Aug 2016
Huachuca Astronomy Club Meeting, Cochise College, Sierra Vista, AZ	Aug 2016
Astrophysics Seminar at CIERA, Northwestern University, Evanston, IL	May 2016
Review talk at Sackler Conference, “The Transient Sky”, Cambridge, MA	May 2016
TAPIR Seminar group, Caltech, Pasadena, CA	May 2016
APS Dissertation Prize talk, Salt Lake City, UT	Apr 2016
Colloquium at Steward Observatory, University of Arizona, Tucson, AZ	Feb 2016
Seminar at NSSTC, Huntsville, AL	Feb 2016
Seminar at University of Rochester, Rochester, NY	Oct 2015

Seminar at Ohio University, Athens, OH	Apr 2015
Seminar at Arizona State University, Tempe, AZ	Mar 2015
Colloquium at University of Illinois, Urbana-Champaign, IL	Nov 2014
Colloquium at University of Nevada, Las Vegas, NV	Nov 2014
Review talk at 2nd Annual GMT Community Science Meeting, Washington, DC	Oct 2014
Seminar at Joint Institute for Nuclear Astrophysics, Michigan State University	Sep 2014
Review talk at "Multi-Messenger Transient Astrophysics", KIAA, Beijing, China	May 2013
General Colloquium at Bishop's University, Quebec	Oct 2012
Review talk at "Chirps, Mergers and Explosions", KITP Santa Barbara, CA	Aug 2012
Guest lecture for "Fundamentals of Contemporary Astronomy", Harvard	Jul 2012
Review talk at "LIGO-Virgo exttrig teleconference"	Jun 2012
Review talk at "General Relativity Informal Tea-Time Series", MIT	May 2012
Review talk at "Physics of Astronomical Transients", Aspen Center for Physics	Jan 2012
Review talk at "LIGO-Virgo exttrig teleconference"	Jul 2011
Review talk at "Gravitational Research & Astro Informal Lunch Series", MIT	May 2011

CONTRIBUTED TALKS (18)

"Swift: 10 Years of Discovery", Rome, Italy	Dec 2014
223 rd American Astronomical Society Meeting, thesis talk, National Harbor, MD	Jan 2014
Institute for Theory and Computation Luncheon, Harvard University, MA	Dec 2013
Thursday special seminar, Columbia Astrophysics Laboratory, NY	Nov 2013
Theoretical Astrophysics Center Seminar, UC Berkeley Astronomy Dept, CA	Oct 2013
FLASH seminar, UC Santa Cruz Dept of Astronomy and Astrophysics, CA	Oct 2013
Tea Talk, Caltech Astronomy Department, CA	Sep 2013
Friday lunch series, Carnegie Observatories, CA	Sep 2013
WUNCH talk, Princeton Department of Astrophysical Sciences, NJ	Sep 2013
"Huntsville in Nashville, Gamma-ray Bursts 2013", Nashville, TN	Apr 2013
"Gamma-ray Bursts 2012", Munich, Germany	May 2012
"Gravitational Wave Open Data Workshop", LIGO, Livingston, LA	Oct 2011
"Time Domain Astrophysics with Swift", Clemson, SC	Oct 2011
"GRBs as Probes", Como, Italy	May 2011
"Gravitational-wave Physics and Astronomy Workshop", Milwaukee, WI	Jan 2011
"Gamma-ray Bursts 2010", Annapolis, MD	Nov 2010
"American Astronomical Society 215th Meeting", Washington D.C. [poster]	Jan 2010
"The Shocking Universe", San Servolo, Italy [poster]	Sep 2009