

Curriculum Vitae – Edo Berger

Professor of Astronomy
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EDUCATION

Ph.D. , Astrophysics, CALIFORNIA INSTITUTE OF TECHNOLOGY Advisor: Prof. Shrinivas R. Kulkarni <i>Cosmic Explosions: The Beasts and Their Lair</i>	May 2004
M.S. , Astrophysics, CALIFORNIA INSTITUTE OF TECHNOLOGY Advisor: Prof. Shrinivas R. Kulkarni	May 2001
B.S. , Astrophysics (Summa Cum Laude), UNIVERSITY OF CALIFORNIA, LOS ANGELES Advisor: Prof. Bernard M. K. Nefkens <i>The Total and Differential Cross Sections of the Reaction $K^-p \rightarrow \Lambda n$.</i>	June 1999

POSITIONS

Professor of Astronomy, HARVARD UNIVERSITY	2014–
John L. Loeb Associate Professor of the Natural Sciences, HARVARD UNIVERSITY	2011–2014
Associate Professor of Astronomy, HARVARD UNIVERSITY	2011–2014
Assistant Professor, HARVARD UNIVERSITY	2008–2011
Carnegie-Princeton Postdoctoral Fellow, PRINCETON /CARNEGIE OBSERVATORIES	2004–2008
Hubble Postdoctoral Fellow, CARNEGIE OBSERVATORIES	2004–2007

HONORS AND AWARDS

Fannie Cox Prize for Excellence in Science Teaching, HARVARD UNIVERSITY	2013
Robert J. Trumpler Award for an Outstanding PhD Thesis, ASTRONOMICAL SOCIETY OF THE PACIFIC	2007
Kingsley Fellowship, CALIFORNIA INSTITUTE OF TECHNOLOGY	2002
E. Lee Kinsey Prize, UNIVERSITY OF CALIFORNIA, LOS ANGELES	1999

PROFESSIONAL SERVICES

SOC, “SWIFT: TEN YEARS OF DISCOVERY”	2014
SOC, “GRAVITATIONAL WAVES PHYSICS & ASTRONOMY WORKSHOP 2015”	2015
SOC Chair, SECOND ANNUAL GMT COMMUNITY SCIENCE MEETING: “TIME-DOMAIN ASTROPHYSICS IN THE ERA OF EXTREMELY LARGE TELESCOPES”	2014
Member, GEMINI OBSERVATORY BOARD	2013–
Harvard representative, GIANT MAGELLAN TELESCOPE SCIENCE ADVISORY COUNCIL	2012–
Organizing Committee, KITP workshop “CHIRPS, MERGERS AND EXPLOSIONS: THE FINAL MOMENTS OF COALESCING COMPACT BINARIES”	2012
Organizing Committee, KITP conference “RATTLE AND SHINE: GRAVITATIONAL WAVE AND ELECTROMAGNETIC STUDIES OF COMPACT BINARY MERGERS”	2012
Editorial Board, SCIENTIFIC REPORTS	2011–
Chair, NATIONAL RADIO ASTRONOMY OBSERVATORY USERS COMMITTEE	2011
Member, NRAO TELESCOPES TIME ALLOCATION PANEL	2011–2012
Splinter session co-organizer, “COOL STARS 16”	2010
SOC, “COSMIC MAGNETISM: FROM STELLAR TO INTERGALACTIC SCALES”	2010
Member, CFA TELESCOPE TIME ALLOCATION COMMITTEE	2010–
Instrument PI, MAGELLAN/LDSS3	2008–
Harvard representative, MAGELLAN CONSORTIUM SCIENCE ADVISORY COUNCIL	2008–

Chair, GEMINI STAFF TELESCOPE TIME ALLOCATION COMMITTEE	2008–2010
Member, NATIONAL RADIO ASTRONOMY OBSERVATORY USERS COMMITTEE	2008–2010
Co-chair, NASA/ <i>Swift</i> GUEST INVESTIGATOR REVIEW PANEL	2007
SOC, “NEW VIEWS OF THE UNIVERSE”	2005
Member, AMERICAN ASTRONOMICAL SOCIETY	1998–
Referee, NATURE, ASTROPHYSICAL JOURNAL, ASTRONOMY & ASTROPHYSICS, NEW ASTRONOMY, MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY	

UNDERGRADUATE, GRADUATE, AND POST-DOCTORAL ADVISING

Postdoctoral Advisor, Dr. Peter Williams	2012–
Postdoctoral Advisor, Dr. Ashley Zauderer	2010–2014
Postdoctoral Advisor, Dr. Ryan Chornock	2009–2014
Graduate Research Advisor, George Miller	2014–
Graduate Research Advisor, Ashley Villar	2014–
Graduate Research Advisor, Maria Drout	2014–
Graduate Research Advisor, Philip Cowperthwaite	2013–
Graduate Research Advisor, Peter Blanchard	2013–
Graduate Research Advisor, Ragnhild Lunnan	2011–
Graduate Research Advisor, Ian Czekala	2010–2012
Graduate Research Advisor, Tanmoy Laskar	2009–
Graduate Research Advisor, Margaret McLean	2008–2010
Graduate Research Advisor, Wen-fai Fong	2008–2014
Graduate Project Advisor, Khee-Gan Lee (Princeton)	2007
Graduate Project Advisor, Min-Su Shin (Princeton)	2006
Undergraduate Summer Research Advisor, Melissa McIntosh	2013
Undergraduate Summer Research Advisor (CfA/REU), Benjamin Cook (Princeton)	2013
Undergraduate Summer Research Advisor (HCRP), Natania Wolansky	2013
Undergraduate Research Advisor (Junior Thesis), Natania Wolansky	2013
Undergraduate Summer Research Advisor (PRISE), Caroline Huang	2011
Undergraduate Research Advisor (Junior Thesis), Tova Holmes	2011
Undergraduate Research Advisor (Senior Thesis), Meredith MacGregor (Goldberg Prize)	2010–2011
Undergraduate Summer Research Advisor (HCRP), Camille Leibler	2010
Undergraduate Research Advisor (Junior Thesis), Meredith MacGregor (Goldberg Prize)	2010
Undergraduate Research Advisor (Junior Thesis), Isaac Shivvers	2010
Undergraduate Summer Research Advisor (PRISE), Ethan Kruse	2009
Undergraduate Research Advisor (Junior Thesis), Jordan Bock	2009
Undergraduate Research Advisor, Carroll Wainwright (Pomona)	2005

DEPARTMENTAL SERVICES AND TEACHING

Chair, CfA Post-doctoral Fellowship Selection Committee	2014–
Director of Undergraduate Studies	2013–
CfA Post-doctoral Fellowship Selection Committee	2013–2014
Committee on Academic Studies	2008–2013
Astronomy Curriculum Review Committee	2011–
Co-organizer of CfA Colloquium series	2009–2011
Astronomy Department Graduate Admissions Committee	2008–2010
Teaching, Astronomy 301hf	Fall 2014
Teaching, Astronomy 100	Spring 2014
Teaching, Astronomy 215hf	Spring 2014
Teaching, Astronomy 215hf	Fall 2013
Teaching, Astronomy 301hf	Fall 2013
Teaching, Astronomy 100	Spring 2013
Teaching, Astronomy 301hf	Spring 2013

Teaching, Astronomy 301hf	Fall 2012
Teaching, Astronomy 219	Spring 2012
Teaching, Astronomy 98	Spring 2012
Teaching, Astronomy 301hf	Spring 2012
Teaching, Astronomy 301hf	Fall 2011
Teaching, Astronomy 100	Spring 2011
Teaching, Astronomy 301hf	Spring 2011
Teaching, Astronomy 301hf	Fall 2010
Teaching, Astronomy 100	Spring 2010
Teaching, Astronomy 97	Spring 2009
Undergraduate Academic Advisor, Melissa McIntosh	2014–
Undergraduate Academic Advisor, Nina Hooper	2014–
Research Exam Committee (chair), Fernando Becerra	2014
Research Exam Committee, George Miller	2014
Research Exam Committee (chair), Mary Zhang	2014
Thesis Advisory Committee (chair), Elisabeth Newton	2013–
Research Exam Committee, Luke Kelley	2013
Undergraduate Academic Advisor, Jodi Balfe	2013–
Undergraduate Academic Advisor, Sara Duval	2013–2014
Thesis Advisory Committee (chair), Gongjie Li	2013–
Thesis Advisory Committee, Nathan Sanders	2013–2014
Research Exam Committee, Nathan Sanders	2012
Thesis Advisory Committee (chair), Andrew Friedman	2011–2012
Thesis Advisory Committee, Paul Torrey	2011–2014
Undergraduate Academic Advisor, Brian Claus	2011–2014
Undergraduate Academic Advisor, Marta Bryan	2010–2012
Thesis Advisory Committee (chair), Robert Penna	2010–2013
Research Exam Committee (chair), Robert Penna	2009
Undergraduate Academic Advisor, Lawrence Valverde	2009–2010
Research Exam Committee, Sumin Tang	2009
Thesis Advisory Committee, Philip Nutzman	2009–2010
Undergraduate Academic Advisor, Daniel Handlin	2009–2010
FAS and Physics/Astronomy Postdoc Panel	2009
Thesis Advisory Committee, Matthew McQuinn	2008
Graduate Academic Advisor, Robert Penna	2008

UNIVERSITY SERVICES

Fannie Cox Prize for Excellence in Science Teaching Selection Committee	2014
Herchel Smith Undergraduate Science Research Program Selection Committee	2014
Harvard College Research Program Selection Committee	2014
Herchel Smith Undergraduate Science Research Program Selection Committee	2012
Freshman Advisor (4 students)	2011–2012
Harvard New Faculty Institute Panel Member	2011
FAS Faculty Council Member	2010–2011
FAS Committee on Undergraduate Education	2010–2011

PRIMARY RESEARCH INTERESTS

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- The physics, progenitors, and host galaxies of gamma-ray bursts
 - The use of gamma-ray bursts as probes of the high-redshift universe
 - Short-duration gamma-ray bursts as sources of gravitational wave radiation
 - The classification, physics, and progenitors of optical transients
 - Tidal disruption events as probes of dormant supermassive black holes
 - Magnetic fields in low mass stars, brown dwarfs, and extrasolar planets

INVITED TALKS & COLLOQUIA

- Invited talk at “Swift: 10 Years of Discovery”, Rome, Italy, December 2014
- Astronomy Colloquium, Boston University, Boston, MA, October 2014
- Invited talk at “Binary Neutron Star Coalescence as a Fundamental Physics Laboratory”, Seattle, WA, July 2014
- Invited talk at “Gravitational Waves and Gamma Ray Bursts”, Buckinghamshire, UK, June 2014
- Invited talk at “Frontiers of Neutron Star Astrophysics”, Ithaca, NY, May 2014
- Invited talk at “The Structure and Signals of Neutron Stars from Birth to Death”, Florence, Italy, March 2014
- Colloquium, Origins Institute at McMaster University, Hamilton, Canada, February 2014
- Invited talk at “223rd Meeting of the American Astronomical Society”, Washington, DC, January 2014
- YCAA Seminar, Yale University, New Haven, CT, December 2013
- Astronomy Colloquium, University of Arizona, Tucson, AZ, November 2013
- Invited talk at “Swift Science Planning Meeting”, State College, PA, October 2013
- Astronomy Colloquium, Stanford/KIPAC, Stanford, CA, October 2013
- Astronomy Colloquium, UC Santa Cruz, Santa Cruz, CA, October 2013
- Invited talk at “Second Annual Moscow Extreme Universe Laboratory Workshop on Gamma-Ray Bursts”, Moscow, Russia, October 2013
- Astronomy Colloquium, Harvard-Smithsonian CfA, Cambridge, MA, September 2013
- Colloquium, Institute for Advanced Studies, Princeton, NJ, September 2013
- Colloquium, Canadian Institute for Theoretical Physics, Toronto, Canada, September 2013
- Colloquium, Perimeter Institute, Waterloo, Canada, September 2013
- Invited talk at “Gravitational Waves”, Kyoto, Japan, May 2013
- Invited review at “GR Science Workshop”, South Padre Island, TX, May 2013
- Colloquium, Perimeter Institute, Waterloo, Canada, April 2013
- Astronomy Colloquium, Cornell University, Ithaca, NY, November 2012
- Astronomy Colloquium, Tufts University, Medford, MA, November 2012
- KITP Director’s Blackboard Talk, Kavli Institute for Theoretical Physics, Santa Barbara, CA, September 2012
- Astronomy Colloquium, Las Cumbres Observatory, Santa Barbara, CA, August 2012
- Astronomy Colloquium, UC Berkeley, Berkeley, CA, August 2012
- Invited talk at “Gamma Ray Bursts in the Era of Rapid Follow-up”, Liverpool, United Kingdom, June 2012
- Invited talk at “Testing General Relativity with Astrophysical Systems”, Cambridge, MA, May 2012
- Invited talk at “Connecting the Electromagnetic and Gravitational Wave Skies in the Era of Advanced LIGO”, Princeton, NJ, May 2012
- Theoretical Astrophysics Colloquium, Caltech, Pasadena, CA, March 2012
- Invited talk at “Outflows, Winds and Jets: From Young Stars to Supermassive Black Holes”, Charlottesville, VA, March 2012
- Invited talk at “TIARA Workshop on the Transient Universe”, Hsinchu, Taiwan, December 2011
- Astronomy Colloquium, Syracuse University, Syracuse, NY, December 2011
- Astronomy Colloquium, Harvard-Smithsonian CfA, Cambridge, MA, October 2011
- Astronomy Colloquium, University of Nevada, Las Vegas, NV, September 2011
- Invited talk at “HEAD 2011”, Newport, RI, September 2011
- Invited talk at “Explosive Ideas about Massive Stars – from Observations to Modeling”, Stockholm, Sweden, August 2011
- Invited review talk at “GRBs as Probes: From the Progenitor’s Environment to the High Redshift Universe”, Como, Italy, May 2011
- Invited talk at “A Decade of Exploration With The Magellan Telescopes”, Pasadena, CA, April 2011

- Invited talk at “The Prompt Activity of Gamma-Ray Bursts: their Progenitors, Engines, and Radiation Mechanisms”, Raleigh, NC, March 2011
- Astronomy Colloquium, University of Rochester, NY February 2011
- Invited talk at “Gravitational-wave Physics and Astronomy”, Milwaukee, WI, January 2011
- Invited talk at “Binary Star Evolution: Mass Loss, Accretion, and Mergers”, Mykonos, Greece, June 2010
- Invited talk at “The First Galaxies, Quasars & Gamma-Ray Bursts”, Penn State, PA, June 2010
- Invited talk at “The First Stars and Galaxies: Challenges for the Next Decade”, Austin, TX, March 2010
- Invited review talk at “HEAD 2010: The 11th Meeting of the High-Energy Astrophysics Division of the American Astronomical Society”, Hawaii, HI, March 2010
- Astronomy Colloquium, University of Texas, Austin, TX, January 2010
- Invited talk at the “Frontiers in High-Energy Astrophysics” winter school, Hebrew University, Jerusalem, Israel, December 2009
- Astronomy Colloquium, Tel Aviv University, Tel Aviv, Israel, December 2009
- Astronomy Colloquium, Boston University, Boston, MA, September 2009
- Invited review talk at “The Shocking Universe: Gamma Ray Bursts and High Energy Shock phenomena in the Universe”, Venice, Italy, September 2009
- Invited talk at “Stellar Death and Supernovae”, KITP, Santa Barbara, CA, August 2009
- Invited talk at “A Festival of Cosmic Explosions: Celebrating the Contributions and Accomplishments of Roger Chevalier”, Caltech, Pasadena, CA, August 2009
- Astronomy Colloquium, Space Telescope Science Institute, Baltimore, MD, January 2009
- Astronomy Colloquium, Massachusetts Institute of Technology, Cambridge, MA, December 2008
- Physics Colloquium, Harvard University, Cambridge, MA, November 2008
- Invited talk at “Classification & Discovery in Large Astronomical Surveys”, Ringberg, Germany, October 2008
- Astronomy Colloquium, Yale University, New Haven, CT, October 2008
- Invited talk at “Far Away: Light in the Young Universe at Redshift Beyond Three”, Paris, France, July 2008
- Astronomy Colloquium, Carnegie Institution Dept. of Terrestrial Magnetism, Washington, DC, May 2008
- Astronomy Colloquium, University of Toronto, Toronto, Canada, March 2008
- Astronomy Colloquium, New York University, New York, NY, March 2008
- Astronomy Colloquium, Columbia University, New York, NY, March 2008
- Invited review talk at “Gamma Ray Bursts 2007”, Santa Fe, NM, November 2007
- Invited talk at “The 10th Anniversary Marseille Cosmology International Conference Energetic Events in the Universe: From Physics to Cosmology”, Marseille, France, June 2007
- Astronomy Colloquium, Observatories of the Carnegie Institution of Washington, Pasadena, CA, June 2007
- Invited review talk at “Swift and GRBs: Unveiling the Relativistic Universe”, Venice, Italy, June 2006
- Astronomy Colloquium, UC Irvine, Irvine, CA, January 2006
- Invited review talk at “16th Annual October Astrophysics Conference in Maryland: Gamma Ray Bursts in the Swift Era”, Washington, DC, November 2005
- Invited talk at “The 47th Annual Meeting of the Division of Plasma Physics”, Denver, CO, October 2005
- Invited talk at “22nd Texas Symposium on Relativistic Astrophysics”, Stanford, CA, December 2004
- Astronomy colloquium, Carnegie Observatories, Pasadena, CA, November 2004
- Invited talk at “Gamma-Ray Bursts in the Afterglow Era: 4th Workshop”, Rome, Italy, October 2004
- Astronomy colloquium, UC Berkeley, Berkeley, CA, September 2003
- Invited talk at “GRB 2003 Conference: Celebration of the 30th anniversary of GRB discovery”, Santa Fe, NM, September 2003
- Astronomy Colloquium, National Radio Astronomy Observatory, Socorro, NM, August 2003
- Invited talk at “3-D Signatures in Stellar Explosions”, Austin, TX, June 2003
- Invited talk at “Gamma-Ray Bursts in the Afterglow Era: 3rd Workshop”, Rome, Italy, September 2002
- Astronomy Colloquium, Joint Astronomy Center, Hilo, HI, January 2002
- Astronomy Colloquium, Mount Stromlo Observatory, Canberra, Australia, September 2001
- Astronomy Colloquium, University of Melbourne, Melbourne, Australia, September 2001
- Astronomy Colloquium, Australia Telescope National Facility, Epping, Australia, August 2001

PRESS RELEASES

For recent press coverage see: *Press Coverage*

- “Explosion Illuminates Invisible Galaxy in the Dark Ages.” August 6, 2013
<http://www.cfa.harvard.edu/news/2013/pr201322.html>
- “Earth’s Gold Came from Colliding Dead Stars.” July 17, 2013
<http://www.cfa.harvard.edu/news/2013/pr201319.html>
- “Multi-Tasking Supernova: Record-Breaking Stellar Explosion Helps Understand Far-Off Galaxy.” August 30, 2012
<http://www.gemini.edu/node/11882>
- “Record-Breaking Stellar Explosion Helps Understand Far-Off Galaxy.” August 30, 2012
<http://www.cfa.harvard.edu/news/2012/pr201226.html>
- “Black Hole Caught in a Feeding Frenzy.” May 2, 2012
<http://www.cfa.harvard.edu/news/2012/pr201213.html>
- “Pan-STARRS Asteroid Hunter and Sky Surveyor Now Fully Operational.” June 16, 2010
<http://www.cfa.harvard.edu/news/2010/pr201008.html>
- “Farthest Known Object: New Gamma-Ray Burst Smashes Cosmic Distance Record.” April 28, 2009
<http://www.cfa.harvard.edu/news/2009/pr200911.html>
- “Gemini Observatory Releases Image of Most Distant Known Object in Universe.” April 28, 2009
<http://www.gemini.edu/furthestgrb>
- “New Gamma-Ray Burst Smashes Cosmic Distance Record.” April 28, 2009
http://www.nasa.gov/mission_pages/swift/bursts/cosmic_record.html
- “Birth of a Supernova”. May 21, 2008
<https://www.princeton.edu/presskits/astro/>
- “Catching the Light of a Baby Supernova”. May 21, 2008
<http://www.gemini.edu/node/281>
- “Odd Little Star has Magnetic Personality”. November 29, 2007
<http://www.gemini.edu/node/261>
- “Astronomers link old stars and mysterious cosmic explosions”. December 15, 2005
http://carnegiescience.edu/news/astronomers_link_old_stars_and_mysterious_cosmic_explosions
- “First gamma-ray bursts detected by new NASA satellite pinpointed by Carnegie and Caltech astronomers”. February 14, 2005
http://carnegiescience.edu/news/first_gamma_ray_bursts_detected_new_nasa_satellite_pinpointed_carnegie_and_caltech_astronomers
- “Despite Appearances, Cosmic Explosions Have Common Origin, Astronomers Discover”. November 12, 2003
<http://www.nrao.edu/pr/2003/grbtwinjet/>
- “Gamma-Ray Bursts, X-Ray Flashes, and Supernovae Not As Different As They Appear”. November 12, 2003
<http://www.caltech.edu/content/gamma-ray-bursts-x-ray-flashes-and-supernovae-not-different-they-appear>
- “Cosmic X-ray Flashes Reveal Their Distance”. September 11, 2003
http://chandra.harvard.edu/press/03_releases/press_091103.html
- “Closest Gamma Ray Burst Providing Scientists With Crucial Test for Burst Physics”. May 28, 2003
<http://www.nrao.edu/pr/2003/grb030329/>
- “Gamma-ray bursts are caused by explosive death of massive stars, new study reveals”. May 16, 2002
http://pr.caltech.edu/media/Press_Releases/PR12247.html
- “First gamma burst detected by new NASA satellite is pinpointed at Palomar Observatory”. November 7, 2001
<http://www.caltech.edu/content/first-gamma-burst-detected-new-nasa-satellite-pinpointed-palomar-observatory>
- “From Enigma to Tool: Gamma-Ray Burst Reveals Secrets of Host Galaxy”. June 5, 2001
<http://www.nrao.edu/pr/2001/grbhost/>
- “Distant Massive Explosion Reveals a Hidden Stellar Factory”. April 4, 2001
<http://m.caltech.edu/content/distant-massive-explosion-reveals-hidden-stellar-factory>
- “Caltech grad student’s team first to detect radio emission from a brown dwarf”. March 14, 2001
<http://www.caltech.edu/content/caltech-grad-students-team-first-detect-radio-emission-brown-dwarf>
- “Students Use VLA to Make Startling Brown-Dwarf Discovery”. March 14, 2001
<http://www.nrao.edu/pr/2001/browndwarf/>