

Alice E. Shapley

UCLA Department of Physics and Astronomy
430 Portola Plaza
Box 951547
Los Angeles, CA 90095-1547

aes@astro.ucla.edu
Tel: (310) 206-3768
Fax: (310) 206-2096

Education

Ph.D. in Astronomy,
California Institute of Technology, 2003
Thesis Title: “Detailed Astrophysical Properties of Lyman Break Galaxies”
Research Advisor: Professor Charles C. Steidel

A.B. in Astronomy and Astrophysics, and Physics,
Magna Cum Laude with Highest Honors in Astronomy/Physics,
Harvard-Radcliffe University, 1997

Employment

Vice Chair for Astronomy and Astrophysics,
Department of Physics and Astronomy
University of California, Los Angeles, 2018–present

Professor, Department of Physics and Astronomy
University of California, Los Angeles, 2013–present

Associate Professor, Department of Physics and Astronomy
University of California, Los Angeles, 2008–2013

Assistant Professor, Department of Astrophysical Sciences
Princeton University, 2005–2008

Miller Postdoctoral Fellow
University of California at Berkeley, 2003–2005

Research Interests

Galaxy formation and evolution
Feedback processes in starburst galaxies
Stellar populations and chemical evolution at high redshift
Evolution of the inter-galactic medium at high redshift

Awards and Honors

Biermann Lecturer, Max Planck Institute for Astrophysics, 2018
Marc Aaronson Memorial Lecturer, University of Arizona, 2014
UCLA Department of Physics and Astronomy Teacher of the Year, 2012
UCLA Department of Physics and Astronomy Teaching Award, 2011, 2013, 2016, 2017
McMaster Cosmology Lecturer, University of Toledo, 2010
Member of “Galaxies Across Cosmic Time” Science Frontier Panel for Astro2010 Decadal Survey, 2009–2010
David and Lucile Packard Fellow, 2006–2011
Alfred P. Sloan Research Fellow, 2006–2008
NSF Graduate Research Fellowship, 1998–2001
Virginia Gilloon Fellowship, Caltech, 1997–1998
Leo Goldberg Prize, Harvard, 1997

Publication Summary

Refereed Articles: 140
Citations: 20936
h-index: 74
(Smithsonian/NASA Astrophysics Data System 08/21/2018)

Observing Experience

Extensive experience in optical and near-infrared imaging and spectroscopy

Principal investigator: Hubble Space Telescope; Cycle 14 ACS program (20 orbits); Cycle 15 NICMOS program (28 orbits); Cycle 20 WFC3/ACS program (32 orbits); Cycle 25 WFC3/ACS program (87 orbits). Co-I on many additional HST and Spitzer programs. Co-I on “EXPO,” WFIRST Science Investigation Team.

Principal Investigator: Keck Observatory; 90 nights since 2007, (LRIS, NIRSPEC, OSIRIS, MOSFIRE, NIRC).

Principal Investigator: Keck/MOSFIRE MOSDEF Survey; Large (LMAP) Program approved by the UC Time Allocation committee for a total of 45.5 nights spanning from 2013 – 2016.

Additional observing experience:

Palomar 200-inch telescope (COSMIC, LFC)

Keck Observatory (HIRES, ESI)

Very Large Telescope (ISAAC)
Gemini-South Telescope (GNIRS)
Subaru Observatory (MOIRCS)
Hubble Space Telescope (WFPC2, ACS, NICMOS, WFC3)
Spitzer Space Telescope (IRAC)
Kitt Peak National Observatory (NEWFIRM)

Service

Peer Review

Referee, 2002–present: *Nature*, *Nature Astronomy*, *The Astrophysical Journal*, *The Astrophysical Journal Letters*, *Astronomy & Astrophysics*, *Astronomy & Astrophysics Letters*, *Monthly Notices of the Royal Astronomical Society*, *Proceedings of the Astronomical Society of Australia*, *Publications of the Astronomical Society of Japan*

Panel Member, NSF AAG Program, Spring 2015

Outside Referee, Hubble Space Telescope Time Allocation Committee, Cycle 22, Spring 2014

Panel Chair and TAC Member, Hubble Space Telescope Time Allocation Committee, Cycle 18, Spring 2010

Member, UC/Keck Time Allocation Committee, 2008–2012, 2017–present

Member, Spitzer Space Telescope Time Allocation Committee, Cycles 4 and 14, Spring 2007, 2018

Member, NOAO Time Allocation Committee, Spring 2005–Fall 2008

Panel Member, Hubble Space Telescope Time Allocation Committee, Cycles 14, 17, 25, 26, Spring 2005, 2008, 2017, Fall 2018

Referee, Canada-France-Hawaii Telescope Canadian Time Allocation Committee, 2002–2004

Scientific Organizing Committees

“Extremely Big Eyes on the Early Universe”, UCLA, January 2019

“Tokyo Spring Cosmic Lyman-Alpha Workshop (Sakura CLAW)”, Tokyo, March 2018

“Characterizing Galaxies with Spectroscopy with a View for JWST”, Leiden, October 2017

“Emission Line Galaxies with MOS: From Cosmic Noon to the Reionization Era,” Cambridge, September 2017

“SnowPAC2017: Ly α -emitting Galaxies,” Snowbird, Utah, March 2017

“Cosmic dawn of galaxy formation: linking observations and theory with new-generation spectral models,” Paris, June 2016

Kavli Foundation Meeting on the Future of Radio/Mm/Submm Astronomy, Chicago, December 2015
Keck Science Meeting, UCLA, September 2015, (SOC Chair)
“Galaxy Masses as Constraints of Formation Models,” Oxford, UK, July 2014
“Tracing Cosmic Evolution with Clusters of Galaxies,” Sesto Pusteria, Italy, July 2013
“Physical Processes in Galaxy Formation,” Aix-en-Provence, France, July 2013
“Galactic Winds Near and Far,” Schloss Ringberg, Germany, June 2013
“Metals in Tuscany 2012,” Spineto, Italy, June 2012
“The Baryon Cycle,” Irvine, June 2012
“High Energy Views of Galaxies and their Nuclei,” Tulum, Mexico, November 2011
Keck Science Meeting, Caltech, September 2011
“Galaxies in the Distant Universe: Dynamics and Early Evolution,” Schloss Ringberg, Germany, May 2010
“Galaxy Evolution and Environment,” Kuala Lumpur, March 2009
“Galaxy Growth In a Dark Universe,” Heidelberg, July 2007
“Searching for Strong Lenses in Large Imaging Surveys” Workshop, Fermilab, June 2007
“The Impact of AGN Feedback on Galaxy Evolution: Theoretical Modelling and Observational Signatures,” Schloss Ringberg, May 2007
“Massive Galaxies over Cosmic Time,” Tucson, November 2006

UCLA Department of Physics and Astronomy

Vice Chair for Astronomy, 2018–present
Member of Astronomy Faculty Search Committee, 2018
Member of Astronomy 2nd-year Graduate Comprehensive Exam Committee, 2017, 2018
Member of Physics & Astronomy Appointments Committee, 2013–2014
Member of Astronomy Colloquium Committee, 2008–present
Member of Astronomy Graduate Admissions Committee, 2010, 2016, 2017, 2018
Co-chair of Astronomy Graduate Admissions Committee, 2011, 2012
Member of Astronomy Graduate Curriculum Committee, 2010
Member of Physics & Astronomy Academic Affairs Committee, 2009–2011, 2013–2014
Organizer of Weekly Extragalactic Reading Group, 2008–present

University of California

Member, UC Observatory Advisory Council (UCOAC), Fall 2013–2017

Member, UC/Keck Time Allocation Committee, Spring 2008–Fall 2012,
Fall 2017–present

Member, Thirty Meter Telescope WFOS/MOBIE Instrument Science
Team, 2008–2012

Member, Governance Board of the Southern California Center for Galaxy
Evolution (multi-campus research program sponsored by UC Office of
Research), 2009–2015

Teaching Experience

UCLA:

Astronomy 3, “The Nature of the Universe,” Spring 2011, Winter 2014,
Fall 2015, 2016, 2017, 2018

Astronomy 4, “Black Holes and Cosmic Catastrophes,” Fall 2008, 2009,
2010, 2011, 2012, 2013, Spring 2012, 2014, 2015, 2016, 2017, 2018

Astronomy 6, “Cosmology: Our Changing Concepts of the Universe,”
Winter 2017

Astronomy 274, “Galaxies,” Winter 2009, 2011

Astronomy 278, “The Formation of Galaxies and the IGM,” Winter
2010

Astronomy 278, “AGNs, Galaxies, and Scientific Writing,” Winter 2012

Astronomy 278, “Scientific Writing,” Winter 2016, 2018

Princeton:

Astronomy 204, “Topics in Modern Astronomy,” Spring 2007

Princeton SCS Summer School on Galaxy Clusters, June 2006

Astronomy 542, Graduate Observational Seminar, Spring 2006

Astronomy 105, “Our Place in the Universe,” Fall 2005

Postdocs and Students Supervised

Princeton:

Annika Peter (graduate student)
Xin Liu (graduate student)
Charlie Conroy (graduate student)

UCLA:

Daniel Nestor (postdoc)
Molly Peeples (postdoc, Center for Galaxy Evolution Fellow)
Xin Liu (postdoc, Hubble Fellow)
Katherine Kornei (graduate student, PhD August 2012)
Kevin Hainline (graduate student, PhD July 2012)
Kristin Kulas (graduate student, PhD June 2013)
Robin Mostardi (graduate student, PhD June 2015)
Ryan Sanders (graduate student, PhD June 2018)
Michelle Consiglio (graduate student)
Xinnan Du (graduate student, PhD June 2018)
Michael Topping (graduate student)
Anthony Pahl (graduate student)
Katie Kaufman (undergraduate student)
Clarissa Valencia (undergraduate student)
Sarah Nagy (undergraduate student)
Peng Shao (undergraduate student)
Timothy Wilson (undergraduate student)

Invited Presentations

Invited colloquium, University of Texas, Austin, February 2019
Invited speaker at conference, “Understanding Emission-line galaxies for the next generation of cosmological surveys,” Teruel, Spain, September 2018
Biermann Lectures, Max Planck Institute for Astrophysics, July 2018
Invited colloquium, MIT, May 2018
Invited colloquium, University of Illinois and Urbana Champaign, March 2018
Invited seminar, UC Davis, March 2018
Invited speaker at conference, “The early growth of galaxies III,” Sesto, January 2018
Invited colloquium, UC Berkeley, November 2017

Invited speaker at conference, “Emission Line Galaxies with MOS: From Cosmic Noon to the Reionization Era,” Cambridge, September 2017”

Invited speaker at conference, “Challenges in Galaxy Evolution: from black holes to the cosmic web,” Florence, August 2017

Invited speaker at “Marc Aaronson Memorial Lecture 30 Conference,” Tucson, AZ, April 2017

Invited colloquium, Harvard, March 2017

Invited colloquium, UC Riverside, February 2017

Invited colloquium, UC Santa Barbara, November 2016

Invited talk at workshop, “Physical Characteristics of Normal Galaxies at $z > 2$,” Leiden, October 2016

Invited Review at conference, “Cosmic dawn of galaxy formation”, Paris, June 2016

Invited colloquium, UC Santa Cruz, April 2016

Distinguished Women Scholar Speaker (3 talks), University of Victoria, March 2016

Invited colloquium, Carnegie Observatory, January 2016

Invited seminar, Carnegie Symposium in Honor of Leonard Searle, Pasadena, CA, July 2015

Invited review, Carnegie Symposium in Honor of Leonard Searle, Pasadena, CA, July 2015

Invited seminar, KITP, Santa Barbara, June 2014

Invited talk at Miller Institute Annual Interdisciplinary Symposium, Tomales Bay, CA, June 2014

Invited colloquium, Caltech, May 2014

Invited talk at conference, “The formation and growth of galaxies in the young Universe,” Obergurgl, Austria, April 2014

Invited Astronomy Seminar, University of Utah, April 2014

Invited Astronomy Seminar, Texas A&M University, March 2014

Invited colloquium, University of Texas, Austin, March 2014

Invited Marc Aaronson Memorial Lecture, University of Arizona, February 2014

Joint NOAO/Steward Observatory Colloquium, February 2014

Invited colloquium, University of Chicago, February 2014

Invited talk at workshop, “Galaxies: Insight Out,” Leiden, July 2012

Invited Closing Review at the May Symposium, “Gas Flows in Galaxies,” Space Telescope Science Institute, May 2012

Invited Presentation at Annual Meeting of UCLA Division of Physical Sciences Board of Visitors, May 2012

Invited colloquium, Whittier College, April 2012

Joint NOAO/Steward Observatory Colloquium, March 2012

Invited colloquium, University of Wisconsin, March 2012

Invited Talk at workshop, “Watching Galaxies Grow Up,” Schloss Ringberg, Bavaria, December 2011

Invited Seminar, Harvard Center for Astrophysics, September 2011

Invited colloquium, MIT, September 2011

Invited Review, “The Cosmic Odyssey of Baryons” conference, Marseille, June 2011

Invited Review, “Frontier Science Opportunities with the James Webb Space Telescope” conference, June 2011

Invited colloquium, University of Maryland, April 2011

Invited colloquium, University of Michigan, March 2011

Invited colloquium, NRAO, November 2010

Public Lecture, Keck Observatory, September 2010

Invited McMaster Cosmology Lecture, University of Toledo, April 2010

Invited Talk at workshop, “Lyman Alpha Emitters,” Ohio State University, April 2010

Invited colloquium, Harvard University, March 2010

Invited colloquium, UCB, February 2010

Invited Seminar, UCSD, January 2010

Invited Talk at workshop, “The Gaseous Evolution of Galaxies,” Schloss Ringberg, Bavaria, November 2009

Invited colloquium, Carnegie Observatory, November 2009

Invited Review, XXVth IAP Annual Colloquium, “The Lyman Alpha Universe,” July 2009

Invited Seminar, UCI, May 2009

Invited colloquium, University of Toronto, March 2009

Invited colloquium, Leiden Observatory, September 2008

Invited Review at workshop, “Galaxies in Real Life and Simulations,” Leiden, September 2008

Invited Seminar, McGill, April 2008

Colloquia, Hertzberg Institute of Astrophysics / UVic, March 2008

Colloquium, UCSC, February 2008

Invited Seminar, Yale, December 2007
Invited Seminar, Penn, November 2007
Invited Seminar, Institute for Advanced Study, October 2007
Colloquium, UMass, Amherst, October 2007
Invited Review at conference, “Astrophysics in the Next Decade: JWST and Concurrent Facilities,” Tucson, September 2007
Invited talk at workshop, “Science in the Era of TMT,” UC Irvine, July 2007
Invited Review at conference, “Galaxy growth in a dark Universe,” Heidelberg, July 2007
Invited Review at conference, “Tracing Cosmic Evolution with Clusters of Galaxies: Six Years Later,” Sesto, June 2007
Invited Astrophysics Seminar, SUNY Stony Brook, April 2007
Invited Astrophysics Seminar, Rutgers University, March 2007
ITC Colloquium, Harvard Center for Astrophysics, March 2007
Colloquium, CU-Boulder, January 2007
Invited Review, “Astrophysics Enabled by the Return to the Moon,” November 2006
Conference Summary, “Massive Galaxies over Cosmic Time II,” November 2006
Colloquium, Cornell University, October 2006
Joint NOAO/Steward Observatory Colloquium, September 2006
Invited Review, IAU Symposium 235, “Evolution of Galaxies across the Hubble Time,” August 2006
Joint Astronomy Colloquium, MPA/MPE/ESO, May 2006
Colloquium, Penn State, March 2006
Invited Seminar, NYU, March 2006
ITC Colloquium, Harvard Center for Astrophysics, February 2006
Invited review at “New Views of the Universe” KICP Inaugural Symposium, December 2005
Colloquium, Space Telescope Science Institute, December 2005
Colloquium, Columbia University, November 2005
Colloquium, Institute of Astronomy, Cambridge, May 2005
Invited Astrophysics Seminar, UC Santa Barbara, April 2005
Colloquium, University of Chicago, December 2004
Invited review at conference, “The High Redshift Frontier,” Tucson, AZ, December 2004

Invited review at workshop, “The Role of Mergers and Feedback in Galaxy Evolution,” Schloss Ringberg, Bavaria, November 2004

Invited Seminar, Lawrence Livermore National Laboratory, September 2004

Invited review talk at Aspen Workshop on Star Formation in Galaxies, Aspen Center for Physics, July 2004

Invited Cosmology Seminar, Max Planck Institute for Extraterrestrial Physics, May 2004

Invited Review at the May Symposium, “Planets to Cosmology: Essential Science in Hubble’s Final Years,” Space Telescope Science Institute, May 2004

Invited Departmental Seminar, Harvard University, February 2004

Invited Departmental Seminar, UC Berkeley, February 2004

Colloquium, University of Washington, February 2004

Colloquium, UC Santa Cruz, January 2004

Invited Seminar, Princeton, November 2003

Invited Cosmology Seminar, UC Davis, November 2003

Invited Oral Presentations at “Galaxy Formation: A Herculean Challenge”, Banff, Canada, November 2003

Cosmology Group Seminar, UC Berkeley, October 2003

Colloquium, UC Los Angeles, October 2003

Colloquium, UC Santa Barbara, October 2002

Colloquium, UC San Diego, April 2002

Invited Talk, Galaxy Formation Workshop, UC Santa Cruz, August 2001

Lunch Talk, IPAC/Caltech, May 2001

Invited Talk, Galaxy Formation Workshop, UC Santa Cruz, August 2000