

LAURANNE LANZ

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EDUCATION

Harvard University, Cambridge, MA Fall 2013
Ph.D. in Astronomy and Astrophysics
Advisors: Howard A. Smith & Matthew L. N. Ashby
Thesis title: *Constraining the Evolution of Galaxies over the Interaction Sequence with Multiwavelength Observations and Simulations*
A.M. in Astronomy 2009
University of Maryland, College Park, College Park, MD 2007
B.S. *summa cum laude* in Astronomy; **B.S. *summa cum laude*** in Physics
Citation for interdisciplinary research; Minor in Music

RESEARCH EXPERIENCE

California Institute of Technology, Infrared Processing and Analysis Center Pasadena, CA
Postdoctoral Scholar September 2013 - Present
Jet feedback on the ISM of host galaxies with Patrick Ogle, Phil Appleton, and Katherine Alatalo
Harvard University, Astronomy Department Cambridge, MA
Graduate Student September 2007 - August 2013
Variation in star formation and AGN activity in interacting galaxies in the Spitzer Interacting Galaxy Survey with Howard A. Smith, Matthew Ashby, Andreas Zezas, and Lars Hernquist
Constraint of the outburst history of Fornax A with multiwavelength observations and of the infrared emission of the 3C31 jet with Christine Jones and William Forman
Constraint of the median plane of classical Kuiper Belt Objects with Matthew Holman and Ruth Murray-Clay
University of Maryland, Physics and Astronomy Departments College Park, MD
Undergraduate Research Assistant June 2004 - May 2007
Detection of known GRBs in Milagro Gamma-Ray Observatory data with Jordan Goodman
Detection of young stellar objects and correlation with 2MASS, SIMBAD, and NED in the Spitzer Legacy Program “From Molecular Cores to Planet-Forming Disks” with Lee G. Mundy
European Center for Nuclear Research (CERN) Geneva, Switzerland
University of Michigan REU at CERN Summer Intern Summer 2006
Created interface to a database with cooling system components for ATLAS, an experiment on the Large Hadron Collider
Kitt Peak National Observatory Tucson, AZ
REU Summer Intern Summer 2005
Determined the relation between angular momentum per mass and mass for massive stars in NGC 6611 using spectroscopic observations with Sidney Wolff and Stephen Strom

TEACHING EXPERIENCE

Harvard University Cambridge, MA
Head Teaching Fellow, Science of the Physical Universe 19: The Energetic Universe Spring 2012
Teaching Fellow, Science A-35: The Energetic Universe Spring 2010
Teaching Fellow, Astronomy 7: Black Holes and the Violent Universe Spring 2009
Derek Bok Center Teaching Certificate Spring 2013

OBSERVING AND TECHNICAL EXPERIENCE

Observing Experience

Triplespec on Palomar 200 in (2 nights)	May 2015
Combined Array for Research in Millimeter-wave Astronomy (CARMA; 10 days)	February 2015
MEGACAM on Magellan Telescope (2 nights)	March 2011
KPNO: WIYN 0.9m (2 nights), WIYN 2.1m (4 nights)	May-July 2005

Technical Experience

Observation Reduction/Analysis:

Photometry: GALEX, Spitzer, Herschel, Swift(UVOT), SDSS, 2MASS, WISE

Spectra: Spitzer, CARMA

Imaging Spectroscopy: Chandra, XMM

Programming Languages: IDL, experience with Fortran, Python, C++, Java, R

Data Analysis Software: MAGPHYS, GALFIT, SExtractor, Sherpa, Xspec, SWARP

Reduction Software: HIPE, CIAO, Miriad, XMM-SAS, MOPEX, IRACProc

PROPOSALS AND GRANTS

Principal Investigator on NuSTAR proposal

NGC1266: A local Compton-thick AGN in a quenching galaxy (50 ks/\$35,275 awarded) Fall 2014

Principal Investigator on Chandra proposal

Characterizing the Jet-ISM Interaction in 3C 424 (70 ks requested) Spring 2015

Principal Investigator on ALMA proposal

Characterizing Jet Feedback on the ISM of H₂ Luminous Radio Galaxies (15hr requested) Spring 2015

Principal Investigator on CARMA proposal

Understanding the nature of SF suppression in radio galaxies (60hr awarded) Spring 2014

Co-Investigator on Chandra proposal

Understanding the Role of AGN in a New Type of Transitioning Galaxies (120 ks requested)
(P.I. K. Alatalo) Spring 2015

Co-Investigator on Hubble proposal

Hitting the Bullseye: Studying Galaxies at the Moment of Quenching Their Star Formation
(24 orbits requested) (P.I. K. Alatalo) Spring 2015

Winds of change: Studying AGN-driven Winds in the Local SF Quenching Galaxy IC860
(4 orbits requested) (P.I. K. Alatalo) Spring 2015

The End and the Beginning of Episodic Triggering in the Galaxy IC2520
(6 orbits requested) (P.I. D. Farrah) Spring 2015

Co-Investigator on ALMA proposal

After the Storm: Mapping the Onset of Star Formation in the Turbulent Taffy Bridge
(11hr requested) (P.I. P. Appleton) Spring 2015

The End and the Beginning of Episodic AGN Triggering in IC2520
(3.3hr requested) (P.I. D. Farrah) Spring 2015

What is Causing Star Formation Suppression in HCG57a?
(7.5hr requested) (P.I. K. Alatalo) Spring 2015

Merging and AGN Feedback in Fornax A
(17hr requested) (P.I. J. Kenney) Spring 2015

Unveiling the State of Molecular Gas in Shocked Poststarburst Galaxies
(13hr requested) (P.I. K. Alatalo) Spring 2015

Co-Investigator on Optical/NIR Ground-based Telescope proposal

<i>Exploring Molecular and Ionized Gas Conditions in Quenching Galaxies</i> (Palomar 200 in; 3 nights awarded) (P.I. P. Appleton)	Spring 2015
<i>Shocked Poststarburst Galaxy Survey</i> (Magellan; 3 nights awarded) (P.I. K. Alatalo)	Spring 2015
<i>Quenching Caught in the Act: Measuring Feedback in SPOGs</i> (Gemini North; 5.3hr awarded) (P.I. J. Rich)	Spring 2015

Co-Investigator on NASA Astrophysics Data Analysis Program proposal

<i>The Evolving Physical Processes in Interacting Galaxies Traced by Their Spectral Energy Distributions</i> (P.I. H. A. Smith)	Spring 2014
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AAS International Travel Grant

<i>Powerful AGN and their Host Galaxies</i> in Port Douglas, Australia	Summer 2014
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AWARDS AND SCHOLARSHIPS

Barry M. Goldwater Scholarship	2006-2007
Banneker/Key Scholarship	2003-2007
National Merit Scholarship	2003
University of Maryland, University Honors	2003-2007

PUBLIC OUTREACH AND MENTORING EXPERIENCE

Public Outreach

National Air & Space Museum Astronomy Chat (web-based)	March 2013-Present
JPL Open House, Pasadena CA	October 2014
Spitzer Science Center Tour, Pasadena, CA	July 2014
New Hampshire Astronomical Society public talk, Concord, NH	April 2013
Smithsonian's Stars public talk at National Air & Space Museum, Washington, DC	January 2012
Observatory Night public talk at Harvard-Smithsonian CfA, Cambridge, MA	December 2011
Public talk to Harvard Institute Learning in Retirement Course, Cambridge, MA	November 2011
Cambridge Explores the Universe, Cambridge, MA	2010-2013
Astronomical Journey, talk at Burleigh Manor Middle School, Columbia MD	March 2011

Mentoring Experience

Caltech Women Mentoring Women mentor	Fall 2014-Spring 2015
Harvard Observing Project: teaching undergraduates to use Clay Telescope	Fall 2012
Mentored SAO REU student Emmet Golden-Marx on Herschel SEDs of galaxies	Summer 2012
Harvard Women in Science, Technology, Engineering, and Mathematics mentor	2011-2012

SEMINARS AND CONFERENCE PRESENTATIONS

Seminars

JPL Astrophysics Lunch Talk, JPL	30 March 2015
Extragalactic Seminar, ETH Zurich	26 November 2014
Spitzer Users' Panel Lunch Talk, Caltech	17 July 2014
Greater IPAC Science Symposium, Caltech	27 March 2014
Optical/Infrared Division Symposium, Harvard-Smithsonian CfA	12 April 2012
Harvard-Smithsonian Monthly Graduate Seminar	8 March 2011
Spitzer IRAC Group Lunch Talk, Harvard-Smithsonian CfA	2010-2012

Conference Presentations

<i>Jet Feedback on the ISM of Radio Galaxies</i> Unveiling the AGN-Galaxy Evolution Connection, Puerto Varas, Chile	9-13 March 2015
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<i>Jet Feedback on the Interstellar Medium of the Radio Galaxy 3C293</i>		
Powerful AGN and their Host Galaxies, Port Douglas, Australia		16-20 June 2014
<i>Constraining the Evolution of Galaxies Over the Interaction Sequence with Multiwavelength Observations and Simulations</i>		
A Panchromatic View of Galaxy Evolution 30 Years After IRAS, Cyprus		10-14 June 2013
<i>Constraining the Evolution of Galaxy Properties in Interacting Systems with UV-FIR Observations and Simulations</i>	221st AAS meeting, Long Beach, CA	6-10 January 2013
<i>Comparing Observations, Models, and Simulations of Interacting Galaxies</i>		
Galactic Scale Star Formation, Heidelberg, Germany		30 July - 3 August 2012
<i>Investigating Galaxy Interactions from the Ultraviolet to the Far-Infrared</i>		
4th GCOE International Symposium, Sendai, Japan		20-22 February 2012
<i>The SEDs of Interacting Galaxies</i>		
IAU Symposium 284 (SEDs of Galaxies), Preston, UK		5-9 September 2011
<i>The Spitzer Interacting Galaxy Atlas</i>	218th AAS meeting, Boston, MA	22-26 May 2011

SERVICE

Organizer for 2015/2016 Pasadena Astronomy Postdoctoral Retreat		2014-present
Judge for AAS Chambliss Astronomy Achievement Student Awards		June 2013
Referee for <i>Astronomische Nachrichten</i>		2012
Harvard-Smithsonian Center for Astrophysics Colloquium Facilitator		2011-2013
Parliamentarian of Graduate Student Council		2011-2012
Departmental Representative to Graduate Student Council		2009-2012

PROFESSIONAL DEVELOPMENT

Astrostatistics Short Course, Pasadena, CA		17-18 Sept. 2014
CARMA Summer School, CARMA, CA		3-9 Aug. 2014
Public Speaking for Teachers and Scholars, Cambridge MA		Fall 2012
Python for Astronomers Series, Cambridge, MA		Mar.-Apr. 2011
Scientists Teaching Science Course (Astronomy 302), Cambridge MA		Spring 2011
6th Chandra/CIAO Workshop, Cambridge MA		20-22 Oct. 2008
6th Spitzer Data Analysis Workshop, Pasadena, CA		25-29 Aug. 2008