CURRICULUM VITAE
JULIA M. COMERFORD

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Department of Astrophysical and Planetary Sciences
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EDUCATION

Ph.D. in Astrophysics, University of California, Berkeley	2009
M.A. in Astrophysics, University of California, Berkeley	2004
A.B. in Astrophysical Sciences, Princeton University	2002

EMPLOYMENT HISTORY

Assistant Professor of Astrophysical and Planetary Sciences University of Colorado, Boulder	2013 - present
Postdoctoral Fellow University of Texas, Austin	2010 - 2013

FELLOWSHIPS & AWARDS

NSF Astronomy and Astrophysics Postdoctoral Fellowship, UT Austin	2011 - 2013
W.J. McDonald Postdoctoral Fellowship, UT Austin	2010 - 2011
American Astronomical Society Division on Dynamical Astronomy Raynor L. Duncombe Prize for Student Research	2009
American Astronomical Society Chambliss Astronomy Achievement Award	2008
National Science Foundation Graduate Research Fellowship	2004 - 2007
Teaching Effectiveness Award, UC Berkeley	2006
American Association of Physics Teachers Outstanding Teaching Assistant, one of 48 awarded nationwide	2005
Outstanding Graduate Student Instructor, UC Berkeley	2005
Bell Labs Graduate Research Fellowship	2002 - 2004

FIRST AUTHOR PUBLICATIONS

10. *"Offset Active Galactic Nuclei as Tracers of Galaxy Mergers and Supermassive Black Hole Growth"*
Julia M. Comerford & Jenny E. Greene, ApJ, submitted

9. *"Dual Supermassive Black Hole Candidates in the AGN and Galaxy Evolution Survey"*
Julia M. Comerford, Kyle Schluns, Jenny E. Greene, & Richard J. Cool, 2013, ApJ, 777, 64

8. *"Kiloparsec-scale Spatial Offsets in Double-peaked Narrow-line Active Galactic Nuclei. I. Markers for Selection of Compelling Dual Active Galactic Nucleus Candidates"*
Julia M. Comerford, Brian F. Gerke, Daniel Stern, Michael C. Cooper, Benjamin J. Weiner, Jeffrey A. Newman, Kristin Madsen, & R. Scott Barrows, 2012, ApJ, 753, 42

7. *"Chandra Observations of a 1.9 kpc Separation Double X-ray Source in a Candidate Dual AGN Galaxy at z=0.16"*
Julia M. Comerford, David Pooley, Brian F. Gerke, & Greg M. Madejski, 2011, ApJ, 737, L19

6. *"Observed Scaling Relations for Strong Lensing Clusters: Consequences for Cosmology and Cluster Assembly"*
Julia M. Comerford, Leonidas A. Moustakas, & Priyamvada Natarajan, 2010, ApJ, 715, 162

5. *"1.75 h^{-1} kpc Separation Dual Active Galactic Nuclei at z=0.36 in the COSMOS Field"*
Julia M. Comerford, Roger L. Griffith, Brian F. Gerke, Michael C. Cooper, Jeffrey A. Newman, Marc Davis, & Daniel Stern, 2009, ApJ, 702, L82

4. *"Inspiralling Supermassive Black Holes: A New Signpost for Galaxy Mergers"*
Julia M. Comerford, Brian F. Gerke, Jeffrey A. Newman, Marc Davis, Renbin Yan, Michael C. Cooper, S.M. Faber, David C. Koo, Alison L. Coil, D.J. Rosario, & Aaron A. Dutton, 2009, ApJ, 698, 956

3. *"The Observed Concentration-Mass Relation for Galaxy Clusters"*
Julia M. Comerford & Priyamvada Natarajan, 2007, MNRAS, 379, 190

2. *"Mass Distributions of Hubble Space Telescope Galaxy Clusters from Gravitational Arcs"*
Julia M. Comerford, Massimo Meneghetti, Matthias Bartelmann, & Mischa Schirmer, 2006, ApJ, 642, 39

1. *"Constraining the Redshift z~6 Quasar Luminosity Function Using Gravitational Lensing"*
Julia M. Comerford, Zoltán Haiman, & Joop Schaye, 2002, ApJ, 580, 63

OTHER PUBLICATIONS

18. *"Extended X-ray Emission from a Quasar-driven Superbubble"*
Jenny E. Greene, David Pooley, Nadia L. Zakamska, **Julia M. Comerford**, & Ai-Lei Sun, ApJ, submitted

17. *"Constraints on Two Active Galactic Nuclei in the Merger Remnant COSMOS J100043.15+020637.2"*
Joan M. Wrobel, **Julia M. Comerford**, & Enno Middelberg, 2014, ApJ, in press

16. *"The Stellar Halos of Massive Elliptical Galaxies II: Detailed Abundance Ratios at Large Radius"*
Jenny E. Greene, Jeremy D. Murphy, Genevieve J. Graves, James E. Gunn, Sudhir Raskutti, **Julia M. Comerford**, & Karl Gebhardt, 2013, ApJ, 776, 64

15. *"Identification of Outflows and Candidate Dual Active Galactic Nuclei in SDSS Quasars at z=0.8—1.6"*
R. Scott Barrows, Claud H. Sandberg Lacy, Julia Kennefick, **Julia M. Comerford**, Daniel Kennefick, & Joel C. Berrier, 2013, ApJ, 769, 95

14. *"PHIBSS: Molecular Gas, Extinction, Star Formation and Kinematics in the z=1.5 Star Forming Galaxy EGS13011166"*
Reinhard Genzel, Linda J. Tacconi, Jason Kurk, Stijn Wuyts, Françoise Combes, Jonathan Freundlich, Alberto Bolatto, Michael C. Cooper, Roberto Neri, Raanan Nordon, Frédéric Bournaud, Andreas Burkert, **Julia M. Comerford**, Pierre Cox, Marc Davis, Natascha M. Förster Schreiber, Santiago García-Burillo, Javier Gracia-Carpio, Dieter Lutz, Thorsten Naab, Sarah Newman, Amélie Saintonge, Kristen Shapiro Griffin, Alice Shapley, Amiel Sternberg, & Benjamin Weiner, 2013, ApJ, 773, 68

13. *"PHIBSS: Molecular Gas Content and Scaling Relations in z=1—3 Normal Star Forming Galaxies"*
Linda J. Tacconi, Roberto Neri, Reinhard Genzel, Françoise Combes, Alberto Bolatto, Michael C. Cooper, Stijn Wuyts, Frédéric Bournaud, Andreas Burkert, **Julia M. Comerford**, Pierre Cox, Marc Davis, Natascha M. Förster Schreiber, Santiago García-Burillo, Javier Gracia-Carpio, Dieter Lutz, Thorsten Naab, Sarah Newman, Alain Omont, Amélie Saintonge, Kristen Shapiro Griffin, Alice Shapley, Amiel Sternberg, & Benjamin Weiner, 2013, ApJ, 768, 74

12. *"Submillimeter Follow-up of WISE-selected Hyperluminous Galaxies"*
Jingwen Wu, Chao-Wei Tsai, Jack Sayers, Dominic Benford, Carrie Bridge, Andrew Blain, Peter R.M. Eisenhardt, Daniel Stern, Sara Petty, Roberto Assef, Shane Bussmann, **Julia M. Comerford**, Roc Cutri, Neal J. Evans II, Roger Griffith, Thomas Jarrett, Sean Lake, Carol Lonsdale, Jeonghee Rho, S. Adam Stanford, Benjamin Weiner, Edward L. Wright, & Lin Yan, 2012, ApJ, 756, 96

11. *"The Advanced Camera for Surveys General Catalog: Structural Parameters for Approximately Half a Million Galaxies"*
Roger L. Griffith, Michael C. Cooper, Jeffrey A. Newman, Leonidas A. Moustakas, Daniel Stern, **Julia M. Comerford**, Marc Davis, Jennifer M. Lotz, Marco Barden, Christopher J. Conselice, Peter L. Capak, S.M. Faber, J. Davy Kirkpatrick, Anton M. Koekemoer, David C. Koo, Kai G. Noeske, Nick Scoville, Kartik Sheth, Patrick Shopbell, Christopher N.A. Willmer, & Benjamin Weiner, 2012, ApJS, 200, 9

10. *"The Stellar Halos of Massive Elliptical Galaxies"*
Jenny E. Greene, Jeremy D. Murphy, **Julia M. Comerford**, Karl Gebhardt, & Joshua J. Adams, 2012, ApJ, 750, 32

9. *"A Candidate Dual Active Galactic Nucleus at z=1.175"*
R. Scott Barrows, Daniel Stern, Kristin Madsen, Fiona Harrison, J. Roberto Assef, **Julia M. Comerford**, Michael C. Cushing, Christopher D. Fassnacht, Anthony Gonzalez, Roger Griffith, Ryan Hickox, J. Davy Kirkpatrick, & David J. Lagattuta, 2012, ApJ, 744, 7

8. *"Systematic Blueshift of Line Profiles in the Type IIn Supernova 2010jl: Evidence for Post-shock Dust Formation?"*
Nathan Smith, Jeffrey M. Silverman, Alexei V. Filippenko, Michael C. Cooper, Thomas Matheson, Fuyan Bian, Benjamin J. Weiner, & **Julia M. Comerford**, 2012, AJ, 143, 17

7. *"The Metallicity Dependence of the CO → H_2 Conversion Factor in z≥1 Star Forming Galaxies"*
Reinhard Genzel, Linda J. Tacconi, Françoise Combes, Alberto Bolatto, Roberto Neri, Amiel Sternberg, Michael C. Cooper, Nicolas Bouché, Frédéric Bournaud, Andreas Burkert, **Julia M. Comerford**, Pierre Cox, Marc Davis, Natascha M. Förster Schreiber, Santiago García-Burillo, Javier Gracia-Carpio, Dieter Lutz, Thorsten Naab, Sarah Newman, Amélie Saintonge, Kristen Shapiro, Alice Shapley, & Benjamin Weiner, 2012, ApJ, 746, 69

6. *"Broad-line Reverberation in the Kepler-field Seyfert Galaxy Zw 229-015"*
Aaron J. Barth, My L. Nguyen, Matthew A. Malkan, Alexei V. Filippenko, Weidong Li, Varoujan, Gorjian, Michael D. Joner, Vardha Nicola Bennert, Janos Botyanszki, S. Bradley Cenko, Michael Childress, Jieun Choi, **Julia M. Comerford**, & 35 others, 2011, ApJ, 732, 121

5. *"A Study of the Gas-Star Formation Relation over Cosmic Time"*
Reinhard Genzel, Linda J. Tacconi, Javier Gracia-Carpio, Amiel Sternberg, Michael C. Cooper, Kristen L. Shapiro, Alberto Bolatto, Nicolas Bouché, Frédéric Bournaud, Andreas Burkert, Françoise Combes, **Julia M. Comerford**, Pierre Cox, Marc Davis, Natascha M. Förster Schreiber, Santiago García-Burillo, Dieter Lutz, Thorsten Naab, Roberto Neri, Alain Omont, Alice Shapley, & Benjamin Weiner, 2010, MNRAS, 407, 209

4. *"High Molecular Gas Fractions in Normal Massive Star Forming Galaxies in the Young Universe"*
Linda J. Tacconi, Reinhard Genzel, Roberto Neri, Pierre Cox, Michael C. Cooper, Kristen L. Shapiro, Alberto Bolatto, Nicolas Bouché, Frédéric Bournaud, Andreas Burkert, Françoise Combes, **Julia M. Comerford**, Marc Davis, Natascha M. Förster Schreiber, Santiago García-Burillo, Javier Gracia-Carpio, Dieter Lutz, Thorsten Naab, Alain Omont, Alice Shapley, Amiel Sternberg, & Benjamin Weiner, 2010, Nature, 463, 781

3. *"SDSS J1536+0441: An Extreme Double Peaked Emitter, Not a Binary Black Hole"*
Ryan Chornock, Joshua S. Bloom, Stephen B. Cenko, Jeffrey M. Silverman, Alexei V. Filippenko, Michael D. Hicks, Kenneth J. Lawrence, Philip Chang, **Julia M. Comerford**, Matthew R. George, Maryam Modjaz, Jeffrey S. Oishi, Eliot Quataert, & Linda E. Strubbe, 2009, The Astronomer's Telegram, #1955

2. *"Comparisons between Isothermal and NFW Mass Profiles for Strong-Lensing Galaxy Clusters"*
Chenggang Shu, Binglu Zhou, Matthias Bartelmann, **Julia M. Comerford**, J.-S. Huang, & Yannick Mellier, 2008, ApJ, 685, 70

1. *"Antibias in Clusters: The Dependence of the Mass-to-Light Ratio on Cluster Temperature"*
Neta A. Bahcall & **Julia M. Comerford**, 2002, ApJ, 565, L5

COMPETITIVELY OBTAINED OBSERVING TIME

As PI:

Chandra X-ray Observatory (105 ks)	2014
Hubble Space Telescope (8 orbits)	2014
Jansky VLA (37.5 hours)	2014
Apache Point Observatory (2 nights)	2014
Jansky VLA (13 hours)	2013
Chandra X-ray Observatory (200 ks)	2012

Hubble Space Telescope (10 orbits)	2012
Harlan J. Smith 2.7m Telescope, McDonald Observatory (26 nights)	2011 - 2013
Gemini-N Observatory, 8m Telescope (13 hours)	2010
Gemini-S Observatory, 8m Telescope (13 hours)	2010
Shane 3m Telescope, Lick Observatory (4 nights)	2010
As Co-I:	
Spitzer Space Telescope (2.7 hours)	2014
Apache Point Observatory (1 night)	2013
Harlan J. Smith 2.7m Telescope, McDonald Observatory (18 nights)	2010 - 2012
Keck Observatory, 10m Telescope (5 nights)	2009 - 2014
Chandra X-ray Observatory (90 ks)	2011
Gemini-N Observatory, 8m Telescope (40 hours)	2010
Gemini-S Observatory, 8m Telescope (20 hours)	2010
Hale 5m Telescope, Palomar Observatory (2 nights)	2010
MMT 6.5m Telescope, Mt. Hopkins (8 nights)	2009 - 2010
Shane 3m Telescope, Lick Observatory (9 nights)	2009 - 2010

INVITED COLLOQUIA

University of California, Irvine (Astrophysics Seminar)	Dec, 3, 2013
University of Wyoming	Oct. 25, 2013
MIT	Oct. 22, 2013
Columbia University	Oct. 3, 2012
Harvard CfA/ITC	Sep. 20, 2012
University of Illinois	Mar. 27, 2012
University of Nevada, Las Vegas	Mar. 1, 2012
University of Colorado, Boulder	Feb. 23, 2012
NASA Goddard Space Flight Center	Feb. 14, 2012
University of Michigan	Feb. 2, 2012
Penn State University	Oct. 13, 2010

INVITED CONFERENCE TALKS

Massive Black Holes: Birth, Growth, and Impact, Santa Barbara, CA	Aug. 5-9, 2013
A Universe of Black Holes, Santa Barbara, CA	Jul. 11, 2013
Binary Black Holes and Dual AGN, Tucson, AZ	Nov. 29-30, 2012
Galaxy Mergers from the Largest to the Smallest Scales, Anchorage, AK	Jun. 11-14, 2012
Interacting Galaxies and Binary Quasars, Trieste, Italy	Apr. 2-5, 2012
Fellows at the Frontiers of Astronomy, Evanston, IL	Aug. 31 – Sep. 3, 2011
Single and Double Black Holes in Galaxies, Ann Arbor, MI	Aug. 22-25, 2011

POSTDOCS ADVISED

Scott Barrows	2013 - 2014
Francisco Mueller-Sanchez	2013 - 2014

Undergraduate Students Advised

James Diekmann	2010 - 2013
Kyle Schluns (co-advised with Jenny Greene)	2011 - 2013

Service

Review panelist for NSF CAREER	2013
Review panelist for NSF Astronomy and Astrophysics Postdoctoral Fellowship	2013
Referee for Nature, ApJ, ApJ Letters, MNRAS	2010 - 2014
Astrophysics colloquium organizer, CU Boulder	2014
Undergraduate mentor for astronomy and astrophysics majors, CU Boulder	2013 - 2014