

CURRICULUM VITAE  
**JULIA M. COMERFORD**

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EDUCATION

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Ph.D. in Astrophysics, University of California, Berkeley	2009
M.A. in Astrophysics, University of California, Berkeley	2004
A.B. in Astrophysical Sciences, <i>magna cum laude</i> , Princeton University	2002

FELLOWSHIPS & AWARDS

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NSF Astronomy and Astrophysics Postdoctoral Fellowship, UT Austin	2011 - present
W.J. McDonald Postdoctoral Fellowship, UT Austin	2010 - present
American Astronomical Society Division on Dynamical Astronomy Student Stipend Award	2009
American Astronomical Society Chambliss Astronomy Achievement Award	2008
NSF 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

GRANTS

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PI, Hubble Space Telescope Program #12754 (10 orbits)	\$36k	2012 - 2014
PI, Chandra X-ray Observatory Program #13700603 (200 ks)	\$96k	2012 - 2014
PI, NSF AST-1102525	\$249k	2011 - 2014
Co-I, Chandra X-ray Observatory Program #12700605 (90 ks)	\$50k	2010 - 2012

COMPETITIVELY OBTAINED OBSERVING TIME

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**As PI:**

Chandra X-ray Observatory (200 ks)	2012
Hubble Space Telescope (10 orbits)	2011 - 2012
Harlan J. Smith 2.7m Telescope, McDonald Observatory (4 nights)	2011
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:**

Harlan J. Smith 2.7m Telescope, McDonald Observatory (18 nights)	2010 - 2012
Keck II Observatory, 10m Telescope (3.5 nights)	2009 - 2012
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

## PUBLICATIONS

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19. *“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, accepted (astro-ph/1203.1651)
18. *“The Stellar Halos of Massive Elliptical Galaxies”*  
 Jenny E. Greene, Jeremy D. Murphy, **Julia M. Comerford**, Karl Gebhardt, & Joshua J. Adams, 2012, ApJ, accepted (astro-ph/1202.4464)
17. *“Kiloparsec-scale Spatial Offsets in Double-peaked Narrow-line AGNs. I. Markers for Selection of Compelling Dual AGN Candidates”*  
**Julia M. Comerford**, Brian F. Gerke, Daniel Stern, Michael C. Cooper, Benjamin J. Weiner, Jeffrey A. Newman, Fiona Harrison, Kristin Madsen, & R. Scott Barrows, 2012, ApJ, accepted (astro-ph/1111.2862)
16. *“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
15. *“Systematic Blueshift of Line Profiles in the Type II<sub>n</sub> 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. Winer, & **Julia M. Comerford**, 2012, AJ, 143, 17
14. *“The Metallicity Dependence of the  $CO \rightarrow H_2$  Conversion Factor in  $z \geq 1$  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
13. *“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

12. “*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
11. “*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
10. “*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
9. “*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
8. “*1.75 h<sup>-1</sup> 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
7. “*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
6. “*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
5. “*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
4. “*The Observed Concentration-Mass Relation for Galaxy Clusters*”  
**Julia M. Comerford** & Priyamvada Natarajan, 2007, MNRAS, 379, 190
3. “*Mass Distributions of Hubble Space Telescope Galaxy Clusters from Gravitational Arcs*”  
**Julia M. Comerford**, Massimo Meneghetti, Matthias Bartelmann, & Mischa Schirmer, 2006, ApJ, 642, 39

2. “*Constraining the Redshift  $z \sim 6$  Quasar Luminosity Function Using Gravitational Lensing*”

**Julia M. Comerford**, Zoltán Haiman, & Joop Schaye, 2002, ApJ, 580, 63

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

## SELECTED INVITED TALKS

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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
University of Illinois, colloquium speaker	Mar. 27, 2012
University of Nevada at Las Vegas, colloquium speaker	Mar. 1, 2012
University of Colorado at Boulder, colloquium speaker	Feb. 23, 2012
NASA Goddard Space Flight Center, colloquium speaker	Feb. 14, 2012
University of Michigan, colloquium speaker	Feb. 2, 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
Penn State University, colloquium speaker	Oct. 13, 2010
Caltech, seminar speaker	Mar. 1, 2010
University of Arizona/NOAO, seminar speaker	Nov. 13, 2009
University of Texas at Austin, extragalactic seminar speaker	Nov. 12, 2009
Yale University, cosmology seminar speaker	Nov. 6, 2009
Space Telescope Science Institute, seminar speaker	Sep. 10, 2009
The Ohio State University, CCAPP seminar speaker	Sep. 8, 2009
American Astronomical Society Division on Dynamical Astronomy Meeting, Virginia Beach, VA	May 2-5, 2009
Observational Signatures of Black Hole Mergers, Baltimore, MD	Mar. 30 – Apr. 1, 2009
Stanford University/KIPAC, seminar speaker	Dec. 5, 2008
Princeton University, seminar speaker	Oct. 23, 2008
Harvard University, High Energy Astrophysics Division seminar speaker	Oct. 22, 2008
Keck Science Meeting, Santa Cruz, CA	Sep. 18, 2008
Merging Black Holes in Galaxies, Katoomba, Australia	Jun. 15-20, 2008
University of California Santa Cruz, cosmology seminar speaker	Oct. 29, 2007
Princeton University, seminar speaker	May 31, 2007
University of California Davis, cosmology seminar speaker	Apr. 6, 2006

## UNDERGRADUATE STUDENTS ADVISED

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

## TEACHING EXPERIENCE

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Instructor, <i>Introduction to General Astronomy</i> (Astronomy 10), UC Berkeley	2007
Instructor, <i>Research Presentation in Astronomy</i> (Astronomy 199), UC Berkeley	2004 - 2006
Graduate Student Instructor, <i>Introduction to Astrophysics</i> (Astronomy 7B), UC Berkeley	2003
Graduate Student Instructor, <i>Introduction to General Astronomy</i> (Astronomy 10), UC Berkeley	2002

## DEPARTMENTAL SERVICE

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Created and hosted the Texas Astronomy Undergraduate Research Symposium, for undergraduates from universities throughout Texas to gather at UT Austin for a day to give presentations on their research	2011
Organize the daily astro-ph discussion group at UT Austin	2011 - present
Serve as postdoc representative for UT Austin astronomy department	2011 - present
Created and maintain the “Research Opportunities in Astronomy for Undergraduates” website for UT Austin	2011 - present
Mentor for underrepresented freshman astronomy majors through UT’s “Scientists for Tomorrow”	2011 - present
Established the \$200 Astronomy Department Poster Award for UC Berkeley’s best undergraduate astronomy research poster	2007 - 2010
Served as student representative on the UC Berkeley astronomy Departmental Review Committee	2008
Created and maintained the “Astronomy Undergraduate Research Resources” website for UC Berkeley	2005 - 2010