Holly L. Maness

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Education

University of California at Berkeley — *Ph.D. Student, M.A. (2006)*
Berkeley, CA. — Expected Ph.D. Completion: **May 2011**
Astrophysics

Grinnell College — *B.A.*
Grinnell, IA. — **May 2004**
Physics

Research Appointments

University of California at Berkeley — *Graduate Student Researcher*
Berkeley, CA. — **Summer 2004 – present**
Faculty Advisors/Collaborators: James Graham, Paul Kalas, Reinhard Genzel, Geoff Marcy

National Radio Astronomy Observatory — *Research Intern*
Socorro, NM. — **Summer 2003 – Fall 2003**
Senior Scientist Advisor: Greg Taylor

Harvard-Smithsonian Center for Astrophysics — *Research Intern*
Cambridge, MA. — **Summer 2002 – Spring 2003**
Senior Scientist Advisor: Saku Vrtilek

Teaching & Service

University of California at Berkeley — *Lecturer*
Berkeley, CA. — **Summer 2006**
Independently designed, prepared & taught full hands-on introductory astronomy course to 30 undergraduate students

Society for Women in the Physical Sciences — *Astronomy Department Coordinator*
Berkeley, CA. — **Spring 2006 - Spring 2008**
Organized annual 2-day orientation for 500 new & transfer physical science students; Revitalized mentoring program (doubled previous participation-rate: 70 students); Coordinated 12 dinners, socials & workshops per year; Oversaw 3 full-day astronomy outreach workshops for 200 middle-school girls

Center for Adaptive Optics Professional Development Program — *Laboratory Instructor*
Maui, HI.; Santa Cruz, CA. — **Spring 2006 - Summer 2006**
Participated in 1-week workshop on inquiry-based instruction; Co-developed 1-day inquiry-based laboratory on vision science for graduate students attending the Center for Adaptive Optics Summer School

University of California at Berkeley *Instructor/Facilitator*
Berkeley, CA. **Fall 2006**
Facilitated discussion and invited guest speakers for seminar required of all new astronomy teaching assistants

University of California at Berkeley *Discipline Cluster Leader*
Berkeley, CA. **Fall 2009**
Led a physical sciences workshop as part of a UC Berkeley wide teaching conference for first-time graduate student teaching assistants

University of California at Berkeley *Research Advisor*
Berkeley, CA. **Spring 2009 - present**
Co-advised a Berkeley junior research associate on an original research project on the AU Mic debris disk

University of California at Berkeley *Teaching Assistant*
Berkeley, CA. **Fall 2004, Spring, 2005, Spring 2006**
Led discussion section, developed assessments, and facilitated homework help sessions for introductory astronomy course; Served as head-TA in Spring 2006

University of California at Berkeley *Teaching Assistant*
Berkeley, CA. **Fall 2009**
Tutored, graded lab reports, facilitated in-class discussion, and presented selected topics for upper-division astronomy laboratory course.

Berkeley Summer Institute for Preparing Future Faculty *Selected Participant*
Berkeley, CA. **May-July 2009**
Participated in University-wide program consisting of two six-week courses, designed to help graduate students successfully navigate upcoming teaching and research transitions in their academic careers

NASA Center for Astronomy Education Workshop *Participant*
Berkeley, CA. **14-15 March 2008**
Participated in workshop on developing goals, writing interactive lectures, implementing peer instruction techniques, and assessing student learning in large Astronomy 101 courses

Journal Publications

Maness, H. L., Kalas, P., Peek, K. M. G., Chiang, E. I., Scherer, K., Fitzgerald, M. P., Graham, James R., Hines, D. C., Schneider, G. & Metchev, S. A. December 2009, The Astrophysical Journal, *Hubble Space Telescope Optical Imaging of the Eroding Debris Disk HD 61005*

Yusef-Zadeh, F., Bushouse, H., Wardle, M., Heinke, C., Roberts, D. A., Dowell, C. D., Brunthaler, A., Reid, M. J., Martin, C. L., Marrone, D. P., Porquet, D., Grosso, N., Dodds-Eden, K., Bower, G. C., Wiesemeyer, H., Miyazaki, A., Pal, S., Gillessen, S., Goldwurm, A., Trap, G. & **Maness, H.** November 2009, The Astrophysical Journal, *Simultaneous Multi-Wavelength Observations of Sgr A* During 2007 April 1-11*

Williams, Peter K.G., Huff, Eric, **Maness, Holly L.**, Modjaz, Maryam, Shapiro, Kristen L., Silverman, Jeffrey M., Strubbe, Linda, Adams, Betsey, Alatalo, Katherine, Chiu, Kuenley, Claire, Mark, Cobb, Bethany, Cruz, Kelle, Desroches, Louis-Benoit, Enoch, Melissa, Hull, Chat, Jang-Condell, Hannah, Law, Casey, McConnell, Nicholas, Meijerink, Rowin, Offner, Stella, Parejko, John K., Pober, Jonathan, Pontoppidan, Klaus, Poznanski, Dovi, Seth, Anil, Stahler, Steven, Walkowicz, Lucianne, West, Andrew A., Wezel, Andrew, & Whysong, David January 2009, Astro2010: The Astronomy and Astrophysics Decadal Survey (Position Paper no. 65), *Training the Next Generation of Astronomers*

Trippe, S., Gillessen, S., Gerhard, O. E., Bartko1, H., Fritz, T. K., **Maness, H. L.**, Eisenhauer, F., Martins, F., Ott, T., Dodds-Eden1, K., & Genzel, R. December 2008, Astronomy & Astrophysics, *Kinematics of the old stellar population at the Galactic Center*

Maness, H. L., Fitzgerald, M. P., Paladini, R., Kalas, P., Duchene, G., & Graham, James R. October 2008, The Astrophysical Journal Letters, *CARMA Millimeter-Wave Aperture Synthesis Imaging of the HD 32297 Debris Disk*

Doeleman, S. S., Weintroub, J. R., Rogers, A. E. E., Plambeck, R., Freund, R., Tilanus, R. P. J., Friberg, P., Ziurys, L. M., Moran, J. M., Corey, B., Young, K. H., Smythe, D. L. , Titus, M., Marrone, D. P., Cappallo1, R. J., Bock, D. C.-J., Bower, G. C., Chamberlin, R., Davis, G. R., Krichbaum, T. P., Lamb, J., **Maness, H.**, Niell, A. E., Roy, A., Strittmatter, P., Werthimer, D., Whitney, A. R. & Woody, D. September 2008, Nature, *Event-horizon-scale structure in the supermassive black hole candidate at the Galactic Centre*

Maness, H., Martins, F., Trippe, S., Genzel, R., Graham, J. R., Sheehy, C., Salaris, M., Gillessen, S., Alexander, T., Paumard, T., Ott, T., Abuter, R., & Eisenhauer, F. November 2007, The Astrophysical Journal, *Evidence for a Long-Standing Top-Heavy IMF in the Central Parsec of the Galaxy*

Martins, F., Trippe, S., Paumard, T., Ott, T., Genzel, R., Rauw, G., Eisenhauer, F., Gillessen, S., **Maness, H.**, & Abuter, R. October 2006, The Astrophysical Journal, *GCIRS 16SW: A Massive Eclipsing Binary in the Galactic Center*

Maness, H. L., Marcy, G. W., Ford, E. B., Hauschildt, P. H., Shreve, A. T., Basri, G. B., Butler, R. P. & Vogt, S. S. February 2007, Publications of the Astronomical Society of the Pacific, *The M Dwarf GJ 436 and its Neptune-Mass Planet*

Maness, H. L., Taylor, G. B., Zavala, R. T., Peck, A. B., & Pollack, L. K. February 2004, The Astrophysical Journal, *Breaking All the Rules: The Compact Symmetric Object 0402+379*

Maness, H. L. & Vrtilek, S. D. August 2003, Publications of the Astronomical Society of the Pacific, *Nebular vs. Stellar Wind Abundances in NGC 6543*

Maness, H. L., Vrtilek, S. D., Kastner, J. H., & Soker, N. May 2003, The Astrophysical Journal, *Abundance Anomalies in the X-ray Spectra of Planetary Nebulae NGC 7027 and BD +30º 3639*

Professional Presentations

Poster: From Circumstellar Disks to Planetary Systems – ESO Workshop (November 2009), *Debris Disk Erosion by the ISM: The Case of HD 61005*

Selected Talk: Annual Berkeley Astrophysics Meeting (May 2009), *Planetary Debris Disks with CARMA*

Contributed Talk: American Astronomical Society Meeting (January 2009), *HST-NICMOS Coronagraphic Polarimetry of the Beta Pic Debris Disk*

Selected Talk: New Light on Young Stars: Spitzer's View of Circumstellar Disks (October 2008), *Exploring Planetary Debris Disks at Millimeter Wavelengths: First Detection & Mapping with CARMA*

Poster (awarded graduate student prize): Cool Stars XV (July 2008), *Exploring Planetary Debris Disks at Millimeter Wavelengths: First Detection & Mapping with CARMA*

Selected Talk: National Science Foundation Site Review of the Center for Adaptive Optics (October 2007), *Evidence for a Long-Standing Top-Heavy IMF in the Central Parsec of the Galaxy*

Contributed Talk: Center for Adaptive Optics Spring Retreat (April 2006), *Evidence for a Long-Standing Top-Heavy IMF in the Central Parsec of the Galaxy*

Poster: American Astronomical Society Meeting (January 2003), *Breaking All the Rules: The Compact Symmetric Object 0402+379*

Poster: American Astronomical Society Meeting (January 2002), *X-ray Spectral Anomalies in Chandra-Observed Planetary Nebulae (2002)*

Honors

National Science Foundation Graduate Research Fellow *(2004 - 2009)*

UC Berkeley Graduate Opportunity Program Fellow *(2004 - 2009)*

Hubble Space Telescope time awarded as principle investigator *(2008, grant award TBD)*

Research highlighted in "New Scientist" *(8-14 Nov 2003)*

Very Long Baseline Array Picture of the Month *(Nov 2003)*

Grinnell College H. George Apostle Prize in Physics *(May 2004)*

Barry M. Goldwater Scholar *(2002 - 2004)*

Marshall Scholarship Finalist *(2004)*

UK Fulbright Fellowship Alternate *(2004)*