

## Andrea M. Ghez

<b>Education:</b>	<b>Ph.D., Physics</b>	Sep 1992
	California Institute of Technology	
	<b>B.S., Physics</b>	Jun 1987
	Massachusetts Institute of Technology	
<b>Professional Experience:</b>		
	<b>Full Professor of Physics &amp; Astronomy</b>	Jul 2000 - present
	University of California Los Angeles	
	<b>Member of Inst. of Geophys. &amp; Planetary Physics</b>	Jul 1999 - present
	University of California Los Angeles	
	<b>Associate Professor of Physics &amp; Astronomy</b>	Jul 1997 - Jun 2000
	University of California Los Angeles	
	<b>Assistant Professor of Physics &amp; Astronomy</b>	Jan 1994 - Jun 1997
	University of California Los Angeles	
	<b>Visiting Research Scholar</b>	Jan 1994 - Mar 1994
	Institute of Astronomy, University of Cambridge, UK	
	<b>Hubble Postdoctoral Research Fellow</b>	Oct 1992 - Dec 1993
	University of Arizona, Steward Observatory	
<b>Awards and Honors:</b>		
	Aaronson Award	2006
	National Academy of Sciences, elected	2004
	American Academy of Arts & Sciences, elected	2004
	Sackler Prize	2004
	UCLA Gold Shield Prize	2004
	UCLA Faculty Research Lecturer Award	2003
	Maria Goeppert-Mayer Award, American Physical Society	1999
	Newton Lacy Pierce Prize, American Astronomical Society	1998
	Outstanding Teaching Award, UCLA Physics Department	1997,1998,2005
	Packard Fellowship	1996
	Sloan Fellowship	1996
	Fullam/Dudley Award	1995
	NSF Young Investigator Award	1994
	Annie Jump Cannon Award, AAS & AAUW	1994
	Hubble Postdoctoral Fellowship	1992
	Pacific Telesis Fellowship	1991
	California Institute of Technology Teaching Award	1991
	Amelia Earhart Award	1987
	Member, Phi Beta Kappa, National Honor Society	

**Recent  
(post Jan. 2002)  
Service:**

*National Review Committees*

NAS Award for Scientific Reviewing Selection, member	2007
NRC Board on Physics and Astronomy, member	2004 - 2010
NRC Committee on Astronomy and Astrophysics, member	2000 - 2004
AAS Warner/Pierce Prize Committee, member	2004-2005
AAS Warner/Pierce Prize Committee, chair	2006
Hubble Post-doctoral Fellowship Selection, member	2004
NASA Michelson Postdoctoral Fellowship Selection, member	1999, 2002

*Telescope Committees*

NASA's SPITZER Space Telescope Time Allocation, chair	2005
University of California Keck Time Allocation, member	1999 - present
SIRTF Mission Science Strategy Review Board, member	2003
Thirty Meter Telescope (formerly CELT) Steering Group, member	1999 - 2002
Science Advisory Committee, member	1999 - present
Instrument Feasibility Proposal Review, member	2005
NASA Keck Interferometry Science Steering, member	1996 - 2003
Keck Adaptive Optics Working Group, member	2004

*Scientific Meeting Organizing Committees*

"Back to the Galaxy II", KITP	Oct 2008
"Science with Laser Guide Star Adaptive Optics," Ringberg	Nov 2007
"Celebrating 15 years of precision astronomy in the Galactic Center: Hot topics & observational challenges," Ringberg	June 2007
"Multiplicity in Star Formation" Toronto CA	May 2007
Galactic Center conference, Bad Honnef Germany	April 2006
Harvard Sackler Conference "The Impact of Supermassive Black Holes on Galaxies"	May 2006
KITP Workshop "The Paradoxes of Massive Black Holes"	April 2005
Aspen Workshop "The Formation of Supermassive Black Holes"	Jun 2004
Radcliffe Workshop "Formation & Evolution of Stars Near the GC	Nov 2003
NASA "October Astrophysics"	2003 - present
SPIE Conf "Future Research Direction & Visions for Astronomy"	Aug 2002

*Other Astronomy Community*

Search Committee for the Director of UC Observatories, member	2005-2006
NAS representative member of USNC-IAU Committee, member	2005 - 2007
General Member of the Aspen Center for Physics	2004 - 2008
Aspen Center for Physics Colloquium Committee, member	2005
NSF Science & Technology Center (CfAO) Associate Director for Astronomical Science	Nov 1999 - present

**Recent  
Service  
(con't):**

*Department of Physics and Astronomy*

Policy & Appointments Committee, member	2000 - 2004, 2007
Building Inauguration Committee, member	2004
Faculty Search Committee, chair	2000-2001, 2006-2007
Computing Resources Manager Interview Committee, member	2006-7
Computer Committee, member	2007
Astronomy Division Graduate Admissions, member	1995-2004
Astronomy Division Graduate Admissions, chair	1996-2004 (except 1998 & 2002)
Graduate Recruitment Committee, member	2004-2005, 2007

*Institute for Geophysics and Planetary Sciences*

Futures Committee, chair	2007
Research Staff Committee, member	1999 - 2002
Education & Fellowship Committee, member	2003 - 2007
Education & Fellowship Committee, chair	2005 - 2007
Merit Increase Committee, member	2004

*Other UCLA Committees*

Dissertation Year Fellowship Faculty Review Committee, member	2007
Faculty Welfare Subcommittee on Childcare, member	2006-present
Gold Shield Faculty Prize Selection Committee, member	2006 - 2007
Committee on Faculty Research Lectureship, member	2006-2008
Committee on Faculty Research Lectureship, chair	2007-2008
Early Care and Education Advisory Board, member	2005-present
Research Advisory Council, member	2004-5
Ad Hoc Review Committee	2001, 2003, 2006 (4, chair 1)

**Research**

**Advising:** *Post Doctoral Researchers*

Elise Furlan	2006 -
Andrea Stolte	2006 -
Gaspard Duchene	2000 - 2004
Lisa Prato	1998 - 2000

**Research  
Advising  
(con't):**

*Graduate Students*

Jennifer Patience, Astronomy	MS 1995, PhD 1999
Russel White, Astronomy	MS 1995, PhD 1999
Beth Klein, Physics	MS 1995
Mike Berkovitch, Astronomy	MS 1996
Angelle Tanner, Astronomy	MS 1998, PhD 2004
Caer McCabe , Astronomy	MS 1999, PhD 2004
Suvi Gezari, Astronomy	MS 2001
Seth Hornstein, Astronomy	MS 2002, PhD 2006
Shelley Wright, Astronomy	MS 2004
Jessica Lu, Astronomy	MS 2005, (PhD 2009)
Quinn Konopacky, Astronomy	MS 2005, (PhD 2009)
Marc Rafelski, Astronomy	MS 2006
Tuan Do, Astronomy	(PhD 2010)
Sylvana Yelda, Astronomy	(MS 2008)
Betsy Mills, Astronomy	(MS 2009)

*Undergraduate Students*

Tracy Beck, Astronomy	Apr 1994 - Aug 1995
Marlon Jimenez, Civil Engineering	Apr 1996 - Aug 1996
Mia Smith, Civil Engineering	Apr 1996 - Jun 1996
Jason Weis, Astronomy	Jan 1997 - Jun 1997
Nairn Baliber, Astronomy	Jan 1997 - Jun 1998
Whitney Raas, Astronomy	Sep 1998 - Jun 2000
David Sand, Physics	Apr 1997 - Sep 2000
Ted Kremenek, Computer Science	Sep 1998 - Sep 2001
Louis Levenson, Astronomy	Aug 2000 - Sep 2001
Michele Carpenter, Astronomy	Jan 2002 - Jun 2002
Amanda Young, Astronomy (UCSC)	Jun 2002 - Aug 2002
Priya Sheth, Aeronautical Engineering	Oct 2002 - Mar 2003
Hamadi Macintosh, Astronomy	Jun 2003 - Aug 2003
Fabio Altenbach, Astronomy	Apr 2003 - June 2005
Javiera Guedes, Astronomy (UCB)	Jun 2004 - Aug 2004
Lia Corrales, Astronomy (Harvey Mudd)	Jun 2005 - Aug 2005
Jill Naiman, Astronomy	Jul 2005 - July 2006
James Dunn, Astronomy	May 2006 - present
Hal Cambier, Physics (University of Oregon)	Jun 2006 - Aug 2006
Ryan Trainor, Physics (UC Irvine)	June 2007 - Aug 2007

*High School Students*

Simone Kleine, (Marlborough High School)	Jun 2002 - Aug 2002
Katie Love-Cooksey, (Marlborough High School)	Jul 2005 - Apr 2006
Christopher Ballard, (Harvard-Westlake School)	Jun 2007 - Aug 2007

### Publication List:

1. Nakajima, T., Kulkarni, S., Gorham, P., Ghez, A., Neugebauer, G., Oke, J.B., Prince, T., and Readhead, A.C.S., 1989, "Diffraction Limited Imaging II: Optical Aperture Synthesis Images of Two Binary Stars," *AJ*, 97, 1510
2. Gorham, P., Ghez, A., Kulkarni, S., Nakajima, T., Neugebauer, G., Oke, J.B., Prince, T., and Readhead, A.C.S. 1989, "Diffraction Limited Imaging III: 30 Milliarcsecond Closure Phase Imaging of Six Binary Stars With the Hale 5 m Telescope," *AJ*, 98, 1783
3. Gorham, P., Ghez, A., Haniff, C., and Prince, T. 1990, "Recovery of Diffraction-Limited Object Autocorrelations from Astronomical Speckle Interferograms Using the CLEAN Algorithm," *AJ*, 100, 294
4. Ghez, A., Kulkarni, S., Matthews, K., Neugebauer, G., Prince, T., and Weir, N. 1990, "Infrared Speckle Imaging at Palomar," in proceedings of S.P.I.E. Symposium on Astronomical Telescopes and Instrumentation for the 21st Century, 1237, 249
5. Weir, N., Ghez, A., Kulkarni, S., Matthews, K., and Neugebauer, G. 1990, "Infrared Non-redundant Mask Imaging at Palomar," in proceedings of S.P.I.E. Symposium on Astronomical Telescopes and Instrumentation for the 21st Century, 1237, 274
6. Ghez, A., Neugebauer, G., Gorham, P., Haniff, C., Kulkarni, S., Matthews, K., Koresko, C., and Beckwith, S. 1991, "Diffraction Limited Infrared Images of the Binary Star T Tauri," *AJ*, 102, 2066
7. Koresko, C., Beckwith, S., Ghez, A., Matthews, K., and Neugebauer, G. 1991, "An Infrared Companion to Z Canis Majoris," *AJ*, 102, 2073
8. Haniff, C., Ghez, A., Gorham, P., Kulkarni, S., Matthews, K., and Neugebauer, G. 1991, "Optical Aperture Synthetic Images of the Photosphere and Molecular Atmosphere of Mira," *AJ*, 103, 1662
9. Gorham, P., Ghez, A., Haniff, C., Kulkarni, S., Matthews, K., and Neugebauer, G. 1991, "A Search For T Tauri's Optical Companion Star," *AJ*, 103, 953
10. Ghez, A., Neugebauer, G., and Matthews, K. 1992 "A Two Dimensional Near-Infrared Speckle Imaging Survey of T Tauri Stars in Taurus and Ophiuchus," in *Complementary Approaches to Double and Multiple Star Research*, IAU Colloquium No. 135, p. 1
11. Koresko, C., Beckwith, S., Ghez, A., Matthews, K., and Herbst, T. 1993, *AJ*, 105, 1481
12. Simon, M., Ghez, A., and Leinert, Ch, 1993, "Multiplicity and the Ages of the Stars in the Taurus Star Forming Region," *ApJLett*, 408, L33
13. Ghez, A. M., Neugebauer, G., and Matthews, K. 1993, "The Frequency of T Tauri Companion Stars," *PASP*, 105, 1
14. Ghez, A. M., Neugebauer, G., and Matthews, K. 1993, "The Multiplicity of T Tauri Stars in the Taurus-Auriga and Ophiuchus-Scorpius Star Forming Regions: A 2.2  $\mu\text{m}$  Imaging Survey," *AJ*, 106, 2005
15. Ghez, A. M., McCarthy, D. W., Weinberger, A. J., Neugebauer, G., Matthews, K. 1994, "A Near Infrared Speckle Imaging Study of T Tauri Stars: Orbital Motion," in "Infrared Astronomy With Arrays: The Next Generation", *Experimental Astronomy*, ed. I. S. McLean, p. 449
16. Lloyd-Hart, M., Colucci, D., Wittman, D., McLeod, B., Ghez, A., McCarthy, D., Dekany, R., and Angel, R. 1993, "Diffraction Limited K Band Imaging at the Multiple Mirror Telescope with Adaptive Optics," in proceedings of S.P.I.E. Symposium on Active and Adaptive Optical Components and Systems II, vol. 1920, p. 338
17. Ghez, A. M., Emerson, J. P., Graham, J. R., Meixner, M., and Skinner, C. J. 1994, "10  $\mu\text{m}$  Imaging of UZ Tau: Evidence For Circumstellar Disk Clearing Due to a Close Companion

Star,” ApJ, 434, 707

18. Colucci, D., Lloyd-Hart, M., Wittman, D., Angel, R., Ghez, A., McCleod-B. 1994, “A Reflective Shack-Hartmann Wave-Front Sensor For Adaptive Optics,” PASP, 106, 1104
19. Ghez, A. M., McCarthy, D. W., Jr., Weinberger, A. J., Neugebauer, G., and Matthews, K. 1994, “Close Companions to T Tauri Stars: Abundant and Perturbing,” in “Interacting Binary Stars”, ASP Proceedings, ed. A. Shafter
20. Simon, M., Ghez, A. M., Leinert, Ch., Cassar, L., Chen, W. P., Howell, R. R., Jameson, R. F., Matthews, K., Neugebauer, G., & Richichi, A. 1995, “A Lunar Occultation & Direct Imaging Survey of Multiplicity in the Ophiuchus and Taurus Star Forming Regions” ApJ, 443, 625
21. Jura, M., Ghez, A. M., White, R. J., McCarthy, D. W., Smith, R. C., and Martin, P. G. 1995, “The Fate of the Solid Matter Orbiting HR 4796A,” ApJ, 445, 451
22. Ghez, A. M., Weinberger, A. J., Neugebauer, G., Matthews, K., and McCarthy, D. W. 1995, “Speckle Imaging Measurements of the Relative Tangential Velocities of the Components of T Tauri Binary Stars,” AJ, 110, 753
23. Ghez, A. M. and Cohen, J., 1995, “You Can Be A Woman Astronomer,” Cascade Pass, Inc. 1-880599-17-1
24. Liu, M. C., Graham, J. R., Ghez, A. M., Meixner, M., Skinner, C. J., Keto, E., Ball, R., Arens, J. F., & Jernigan, J. 1996, ApJ, “Mid-Infrared Imaging of Young Stellar Objects,” 461, 334
25. Ghez, A. M. 1996, “Young Binary Stars,” invited review article in proceedings of NATO/ASI on Evolutionary Processes in Binary Stars, 477, 1
26. Matthews, K., Ghez, A. M., Weinberger, A. J., and Neugebauer, G. 1996, “The First Diffraction-Limited Images from the W. M. Keck Telescope,” PASP, 108, 615
27. Klein, B. K., Ghez, A. M., Morris, M., and Becklin, E. E. 1996, “2.2  $\mu\text{m}$  Keck Images of the Galaxy’s Central Stellar Cluster at 0.''05 Resolution,” in the 4th CTIO/ESO Workshop on “The Galactic Center”
28. Padgett, D. L., Strom, S. E., and Ghez, A. M. 1997, “Hubble Space Telescope WFPC2 Observations of the Binary Fraction Among Pre-Main Sequence Cluster Stars in Orion,” ApJ, 477, 705
29. Ghez, A. M., McCarthy, D. W., Patience, J.L., and Beck, T.L. 1997, “The Multiplicity of T Tauri Stars in Southern Star Forming Regions,” ApJ, 481, 378
30. Marcy, G., Butler, P., Williams, E., Bildsten, L., Graham, J.R., Ghez, A. M., and Jernigan, G. 1997, “The Planet around 51 Pegasi,” ApJ, 481, 926
31. Ghez, A. M., White, R. J., and Simon, M. 1997 “High Spatial Resolution Imaging of Pre-Main-Sequence Binary Stars: Resolving the Relationship Between Disks and Close Companions,” ApJ, 490, 353
32. Ghez, A. M. 1998 “Pre-Main Sequence Binaries: Formation, Evolution, and Interaction with Disks,” invited review article in ORIGINS, Proceedings of the International Conference, Astronomical Society of the Pacific Conf. Series, Vol. 148, eds. C.E. Woodward, J.M. Shull, and H.A. Thronson, Jr.
33. Patience, J. L., Ghez, A. M., Ried, I. N., Weinberger, A., and Matthews, K. 1998 “The Multiplicity of the Hyades and its Implications for Binary Star Formation and Evolution”, AJ, 115, 1972
34. Ghez, A. M., Klein, B. L., Morris, M., and Becklin, E. E. 1998, “High Proper Motions in the Vicinity of Sgr A\*,” in proceedings of IAU Symp. No. 184 “The Central Region of the Galaxy and Galaxies”, ed. Y. Sofue

35. Becklin, E. E., Morris, M., Figer, D., Ghez, A. M., Puetter, R., and Jones, B. 1998, "12.5  $\mu\text{m}$  Imaging of Sgr A West With the Keck Telescope," in proceedings of IAU Symp. No. 184 "The Central Region of the Galaxy and Galaxies", ed. Y. Sofue
36. Figer, D. F., Najarro, F., Morris, M., McLean, I. S., Geballe, T. R., Ghez, A. M., and Langer, N. 1998, "The Pistol Star," *ApJ*, 506, 384
37. Ghez, A. M., Klein, B. L., Morris, M., and Becklin, E. E. 1998, "High Proper Motion Stars in the Vicinity of Sgr A\*: Evidence for a Supermassive Black Hole at the Center of Our Galaxy," *ApJ*, 509, 678
38. Ghez, A. M., Klein, B. L., Morris, M., and Becklin, E. E. 1998, "High Proper Motion Stars in the Vicinity of Sgr A\*: Evidence for a Supermassive Black Hole at the Center of Our Galaxy," to appear in "Observational Evidence for Black Holes in the Universe," ed. S. K. Chakrabarti
39. Wood, K., Crosas, M., and Ghez, A. M. 1999, "GG Tauri's Circumbinary Disk: Models for Near Infrared Scattered Light Images and Molecular Line Profiles," *ApJ*, 516, 335
40. Gibbard, S. G., Macintosh, B., Gavel, D., Max, C. E., de Pater, I., Ghez, A. M., Young, E. F., and McKay C. P. 1999, "Titan: High-Resolution Speckle Images from the Keck Telescope" *Icarus*, 139, 189
41. Ghez, A. M., Morris, M., and Becklin, E. E. 1999, "Dynamical Evidence for a Supermassive Black Hole at the Center of the Milky Way," Invited review in A.S.P. proceedings of "Galaxy Dynamics" eds. J. Sellwood and D. Merritt, Vol. 182, p. 24
42. White, R. J., Ghez, A. M., Reid, I. N., and Schultz, G. 1999, "A Test of Pre-Main Sequence Evolutionary Models Across the Stellar/Substellar Boundary Based on Spectra of the Young Quadruple GG Tau," *ApJ*, 520, 811
43. Morris, M., Ghez, A. M., and Becklin, E. E. 1999, "The Galactic Center Black Hole: Clues for the Evolution of Black Holes in Galactic Nuclei," *Advances in Space Research*, 23, 959
44. Tanner, A. M., Ghez, A. M., Morris, M., and Becklin, E. E. 1999, "Spatially Resolved Dust Shells in the Central Parsec," in "The Central Parsecs of the Galaxy," ASP Conf. Series, Vol. 186, p. 351, eds. H. Falcke et al.
45. Cotera, A., Ghez, A. M., Stolovy, S., Morris, M., and Becklin, E. E. 1999, "Mid-Infrared Observations of Sgr A West from Keck," in "The Central Parsecs of the Galaxy," ASP Conf. Series, Vol. 186, p. 240, eds. H. Falcke et al.
46. Ghez, A. M., Morris, M., and Becklin, E. E. 1999, "High Proper Motion Stars in the Vicinity of Sgr A\*," in "The Central Parsecs of the Galaxy," ASP Conf. Series, Vol. 186, p. 18, eds. H. Falcke et al.
47. Beck, T. L., Simon, M., Ghez, A. M., Prato, L., & Howell, R. R. 2000, "The Near IR and Ice-band Variability of T Tau and Haro 6-10," in "Birth & Evolution of Binary Stars", Poster Proceedings of IAU Symposium No. 200 on The Formation of Binary Stars, eds. B. Reipurth & H. Zinnecker, p. 51.
48. Prato, L., Ghez, A. M., Pina, R. K., Tesesco, C. M., Fisher, R., Wizinowich, P., Lai, O., Acton, D. S., and Stomski, P., "Keck Diffraction-Limited Imaging of the Young Quadruple Star System HD 98800," in "Birth & Evolution of Binary Stars", Poster Proceedings of IAU Symposium No. 200 on The Formation of Binary Stars, eds. B. Reipurth & H. Zinnecker, p. 65.
49. McCabe, C. and Ghez, A. M. 2000, "A Detailed Study of the GG Tau Circumbinary Disk," in "The Formation of Binary Stars," Poster Proceedings of IAU Symp. 200, eds. B. Mathieu and H. Zinnecker, p. 80
50. Tesesco, C. M., Fisher, R. S., Pina, R. K., Knacke, R. F., Dermott, S. F., Wyatt, M. C., Grogan, K., Ghez, A. M., Prato, L., Hartmann, L. W., and Jayawardhana, R. 2000, "Deep

- 10 and 18 micron Imaging of the HR4796A Circumstellar Disk: Transient Dust Particles and Tentative Evidence for a Brightness Asymmetry” *ApJ*, 530, 329
51. Wizinowich, P., Acton, D. S., Shelton, C., Stomski, P., Gathright, J., Ho, K., Lupton, W., Tsubota, K., Lai, O., Max, C., Brase, J., An, J., Avicola, K., Olivier, S., Gavel, D., Macintosh, B., Ghez, A., and Larkin, J. 2000, “Adaptive Optics at the Keck Telescope: A New Era of High Angular Resolution Imagery,” *PASP*, 112, 315
  52. Mathieu, R. D., Ghez, A. M., Jensen, E. L. N., and Simon, M. 2000, “Young Binary Stars,” in “Protostars and Planets IV,” Tucson, University of Arizona Press, eds. Mannings, Boss, and Russell, p. 703
  53. Tanner, A. M., Ghez, A. M., Morris, M., Becklin, E. E., Cotera, A., Ressler, M. E. 2000, “Is the galactic center source, IRS 21, as large as it appears?” *SPIE*, 4005, 180
  54. Max, C. E., Macintosh, B. A., Gibbard, S., Gavel, D. T., Roe, H., de Pater, I., Ghez, A. M., Acton, S., Wizinowich, P. L., Lai, O. 2000 “Neptune and Titan Observed With Keck Telescope Adaptive Optics,” *Proc. SPIE*, 4007, 803
  55. Ghez, A. M., Morris, M., Becklin, E. E., Kremenek, T., and Tanner, A. 2000, “The Accelerations of Stars Orbiting the Milky Way’s Central Black Hole,” *Nature*, 407, 349
  56. Ghez, A. M., Kremenek, T., Tanner, A., Morris, M., and Becklin, E. E. 2001, “Towards Complete Stellar Orbits Around the Galaxy’s Central Black Hole: The First Acceleration Measurements” in *ESO Proceedings of “Black Holes in Binaries and Galactic Nuclei,”* eds L. Kaper, E.P.J. van den Heuvel, and P.A. Woudt, p. 72
  56. White, R. J. & Ghez, A. M. 2001, “Young Binary Stars in Taurus-Auriga,” in “The Formation of Binary Stars,” *Proceedings of IAU Symp. 200*, eds. B. Mathieu and H. Zinnecker, p. 332
  57. Ghez, A. M., Morris, M., Becklin, E. E., Kremenek, T., and Tanner, A. 2001, “The Keck Proper Motion Study of the Galaxy’s Central Stellar Cluster: From Speckle Imaging and Velocities to Adaptive Optics and Accelerations,” in “Dynamics of Star Clusters and the Milky Way” *Astronomical Society of the Pacific Conference Series, Vol. 228*, p. 309, eds. S. Deiters, B. Fuchs, A. Just, R. Spurzem, and R. Wielen (San Francisco: ASP)
  58. Ghez, A. M. 2000, “What Can Pre-Main-Sequence Binary Star Populations Tell Us About Formation Mechanism?,” in “The Formation of Binary Stars,” *Proceedings of IAU Symp. 200*, eds. B. Mathieu and H. Zinnecker, p. 210
  59. McCabe, C. and Ghez, A. M. 2000, “A Detailed Study of the GG Tau Circumbinary Disk,” in “The Formation of Binary Stars,” *Proceedings of IAU Symp. 200*, eds. B. Mathieu and H. Zinnecker, p. 245
  60. White, R. J. & Ghez, A. M. 2001, “Young Binary Stars in Taurus-Auriga,” *IAU Symposium No. 200*, eds. B. Mathieu and H. Zinnecker, p. 332
  61. Prato, L., Ghez, A. M., Pina, R. K., Telesco, C. M., Fisher, R. S., Wizinowich, P., Lai, O., Acton, D. S., and Stomski, P., 2001 “Keck Diffraction-Limited Imaging of the Young Quadruple Star System HD 98800,” *ApJ*, 549, 590
  62. White, R., and Ghez, A. M., 2001 “Observational Constraints on the Formation and Evolution of Binary Stars,” *ApJ*, 556, 265
  63. Bruggmann, B., Ghez, A. M., Greiner, J. 2001 “Black Holes,” *PNAS*, 98, 19, 10525
  64. Gibbard, S., Roe, H., de Pater, I., Macintosh B., Gavel, D., Max, C. E., Baines, K. H., Ghez, A. 2003, “High-Resolution Infrared Imaging of Neptune from the Keck Telescope,” *Icarus*, 156, 1
  65. Patience, J., Ghez, A. M., Reid, I. N., Matthews, K. 2002 “Multiplicity Surveys of  $\alpha$ Per and Praesepe: Studying the Effects and Evolution of Companions,” *AJ*, 123, 1570



66. Duchêne, G., Ghez, A. M., McCabe, C. 2002 “Resolved Near-Infrared Spectroscopy of the Mysterious Pre-Main Sequence Binary System T Tau S,” *ApJ*, 568, 771
67. McCabe, C., Duchêne, G., & Ghez, A. M. 2002, “NICMOS Images of the GG Tau Circumbinary Disk,” *ApJ*, 575, 974
68. Tanner, A. L., Ghez, A. M., Morris, M., and Becklin, E. E. 2002 “Spatially Resolved Observations of the Galactic Center Source, IRS 21,” *ApJ*, 575, 860
69. Hornstein, S. D., Ghez, A. M., Tanner, A., Morris, M., Becklin, E. E., Wizinowich, P., 2002 “Limits on the Short Term Variability of Sagittarius A\* in the Near Infrared,” *ApJ*, 577L, 9
70. Gezari, S., Ghez, A. M., Becklin, E. E., Larkin, J., McLean, I. S., Morris, M. 2002 “Adaptive Optics Near-Infrared Spectroscopy of the SgrA\* Cluster,” *ApJ*, 576, 790
71. Patience, J., White, R. J., Ghez, A. M., McCabe, C., McLean, I. S., Larkin, J. E., Prato, L., Kim, Sungsoo S., Lloyd, J. P., Liu, M. C., Graham, J. R., McIntosh, B. A., Gavel, D. T., Max, C. E., Bauman, B. J., Olivier, S. S., Wizinowich, P., Acton, D. S. 2002, “Stellar Companions to Stars with Planets,” *ApJ*, 581, 654
72. Max, C. E., Macintosh, B. A., Gibbard, S. G., Gavel, D. T., Roe, H. G., de Pater, I., Ghez, A. M., Acton, S. D., Lai, O., Stomski, P., & Wizinowich, P. L. 2002, “Cloud Structures on Neptune Observed with Keck Telescope Adaptive Optics,” *AJ*, 125, 364
73. Patience, J., Macintosh, B., Shuping, R., & Ghez, A. 2003, “A Keck Adaptive Optics Survey of the Trapezium,” in proceedings of IAU Symp. No. 221 on “Star Formation at High Angular Resolution”, p. 84
74. Duchêne, G., McCabe, C., Ghez, A. M., Ménard, F., Stapelfeldt, K., & Duvert, G. 2003, “Combining Scattering and Thermal Emission to Study the Properties of Dust Grains in Protoplanetary Disks,” in Proceedings of “Astrophysics of Dust,” ed. A. N. Witt
75. McCabe, C., Duchêne, G., Ghez, A. M., Macintosh, B. 2003, “Mid-infrared Scattered Light from Protoplanetary Disks: Evidence for Grain Growth,” in Proceedings of “Astrophysics of Dust,” ed. A. N. Witt
76. Ghez, A. M., Duchêne, G., Matthews, K., Hornstein, S. D., Tanner, A., Larkin, J., Morris, M., Becklin, E. E., Salim, S., Kremenek, T., Thompson, D. J., Soifer, B. T., Neugebauer, G., McLean, I. 2003 “The First Measurement of Spectral Lines in a Short-Period Star Bound to the Galaxy’s Central Black Hole: A Paradox of Youth,” *ApJ*, 586, L127
77. McCabe, C., Duchêne, G., & Ghez, A. M. 2003, “The First Detection of Spatially Resolved Mid-Infrared Scattered Light From a Proto-Planetary Disk,” *ApJ*, 588, L113
78. Duchêne, G., Ghez, A. M., McCabe, C., Weinberger, A. 2003 “No Fossil Disk in the T Tauri Multiple System V773 Tauri,” *ApJ*, 592, 288
79. Hornstein, S. D., Ghez, A. M., Tanner, A., Morris, M., & Becklin, E. E. 2003, “Limits on the Short Term Variability of Sagittarius A\* in the Near Infrared,” *Astron. Nachr.*, Vol. 324, No. S1, Special Supplement “The central 300 parsecs of the Milky Way”, Eds. A. Cotera, H. Falcke, T. R. Geballe, S. Markoff
80. Ghez, A. M., Becklin, E. E., Duchêne, G., Hornstein, S., Morris, M., Salim, S., Tanner, A. 2003 “Full Three Dimensional Orbits For Multiple Stars on Close Approaches to the Central Supermassive Black Hole,” *Astron. Nachr.*, Vol. 324, No. S1, Special Supplement “The central 300 parsecs of the Milky Way”, Eds. A. Cotera, H. Falcke, T. R. Geballe, S. Markoff
81. Tanner, A. M., Ghez, A. M., Morris, M., Becklin, E. E. 2003, “Resolving the Northern Arm Sources at the Galactic Center,” *Astron. Nachr.*, Vol. 324, No. S1, Special Supplement “The central 300 parsecs of the Milky Way”, Eds. A. Cotera, H. Falcke, T. R. Geballe, S. Markoff

82. Macintosh, B. A., Gavel, D., Givvard, S. G., Max, C. E., Eckart, M., de Pater, I., Ghez, A. M., Specer, J. 2003, "Speckle Imaging of Volcanic Hotspots on Io with the Keck Telescope," *Icarus*, 165, 137
83. Ghez, A. M. 2003 "The Supermassive Black Hole at the Center of the Milky Way," *Carnegie Observatories Astrophysics Series, Vol. 1: Co-evolution of Black Holes and Galaxies*, ed. L. C. Ho (Cambridge: Cambridge Univ. Press)
84. Ghez, A. M., Wright, S. A., Matthews, K., Thompson, D., Le Mignant, D., Tanner, A., Hornstein, S. D., Morris, M., Becklin, E. E., Soifer, B. T. 2004, "Variable Infrared Emission from the Supermassive Black Hole at the Center of the Milky Way," *ApJ*, 601, L159
85. Duchêne, G., McCabe, C., & Ghez, A. M. 2004, "A Multi-wavelength Scattered Light Analysis of the Dust Grain Population in the GG Tau Circumbinary Ring," *ApJ*, 606, 969
86. Gibbard, S. G., Macintosh, B., Gavel, D., Max, C. E., dePater, I., Roe, H. G., Ghez, A. M., Young, E. F., McKay, C. P. 2004, "Speckle Imaging of Titan at 2 microns: Surface Albedo, Haze Optical Depth, and Tropospheric Clouds 1996-1998," *Icarus*, 169, 429
87. Ghez, A. M. 2004, "Probing the Galactic Black Hole and its Environment with the Orbits of Stars Experiencing Their Closest Approaches," in proceedings of 4th Cologne-Bonn-Zermatt-Symposium , "The Dense Interstellar Medium in Galaxies," Zermatt, Switzerland
88. Bouy, H., Duchêne, G., Köhler, R., Brandner, W., Bouvier, J., Martin, E. L., Ghez, A., Delfosse, T., Forveille, T., Allard, F., Baraffe, I., Basri, G., Close, L., McCabe, C. E. 2004 "First determination of the dynamical mass of a binary L dwarf," *A&A*, 423, 341
89. Patience, J., Macintosh, B., Shuping, R., & Ghez, A. 2005, "A Keck Adaptive Optics Survey of the Trapezium," *Protostars and Planets V*, p. 8503
90. Konopacky, Q. M., Ghez, A. M., Altenbach, F., McCabe, C., Duchene, G., White, R. J., & Macintosh, B. A. 2005 "Dynamical Masses of Pre-Main Sequence Visual Binary Stars," *Protostars and Planets V*, 8541
91. McCabe, C., Ghez, A. M., Prato, L., & Duchêne, G. 2005 "Investigating Disk Evolution: A High Spatial Resolution Mid-Infrared Survey of T Tauri Stars," *Protostars and Planets V*, 8549
92. McCabe, C., Duchene, G., Pinte, C., Menard, F., Stapelfeldt, K. R., & Ghez, A. M. 2005 "Thermal Infrared Adaptive Optics Imaging of Circumstellar Disks: Investigating Grain Growth and Disk Structure," *Protostars and Planets V*, 8627
93. Beck, T. L., Schaefer, G. H., Duchene, G., & Ghez, A. M. 2005 "T Tau: An Enigmatic Eponym," *Protostars and Planets V*, 8643
94. Ghez, A. M., Salim, S., Hornstein, S. D., Tanner, A., Morris, M., Becklin, E. E., Duchêne, G. 2005, "Stellar Orbits Around the Galactic Center Black Hole," *ApJ*, 620, 744
95. Bouy, H., Duchêne, G., Köhler, R., Brandner, W., Bouvier, J., Martín, E., & Ghez, A. 2005 "First determination of the orbit of a binary L-dwarf," *13th Cambridge Workshop on Cool Stars, Stellar Systems and the Sun*, eds. F. Favata et al., 560, 277
96. Weinberg, N. N., Milosavljevic, M., Ghez, A. M., 2005 "Stellar Dynamics at the Galactic Center with an Extremely Large Telescope," *ApJ*, 622, 878
97. Munro, M., Pfahl, E., Baganoff, F. K., Brandt, W. N., Ghez, A., Lu, J., Morris, M. R., 2005, "An Overabundance of Transient X-Ray Binaries Within 1 pc of the Galactic Center," *ApJ*, 622, L113
98. Tanner, A., Ghez, A. M., Morris, M. R., & Christou, J. C. 2005 "Stellar Bowshocks in the Northern Arm of the Galactic Center: More Members and Kinematics of the Massive Star Populations," *ApJ*, 624, 742

99. Lu, J. R., Ghez, A. M., Hornstein, S. D., Morris, M., & Becklin, E. E. 2005, "IRS 16SW - A New Comoving Group of Young Stars in the Central Parsec of the Milky Way," *ApJLett*, 625 51
100. Blake, C. H. et al. 2005, "An Infrared Flash Contemporaneous with the X-rays of GRB 041219a," *Nature*, 435, 181
101. Duchêne, G., Ghez, A. M., McCabe, C., & Ceccarelli, C. 2005, "The Circumstellar Environment of T Tau S at High Spatial and Spectral Resolution," *ApJ*, 628, 832
102. Weinberg, N. N., Milosavljevic, M., Ghez, A. M., 2004 "Astrometric Monitoring of Stellar Orbits at the Galactic Center with a Next Generation Large Telescope," in "Astrometry in the Age of the Next Generation of Large Telescopes," ASP Conference Series, eds P. K. Seidelmann & A. Monet
103. Munro, M. P., Lu, J. R., Baganoff, F. K., Brandt, W. N., Garmire, G. P., Ghez, A. M., Hornstein, S. D., & Morris, M. R. 2005, "A Remarkable Low-Mass X-Ray Binary within 0.1 Parsec of the Galactic Center," *ApJ*, 633, 228
104. Ghez, A. M., Hornstein, S. D., Lu, J. R., Bouchez, A., Le Mignant, D., van Dam, M. A., Wizinowich, P., Matthews, K., Morris, M., Becklin, E. E., Campbell, R. D., Chin, J. C. Y., Hartman, S. K., Johansson, E. M., Lafon, R. E., Stomski, P. J., & Summers, D. M. 2005, "The First Laser Guide Star Adaptive Optics Observations of the Galactic Center: Sgr A\*'s Infrared Color and the Extended Red Emission in its Vicinity," *ApJ*, 635, 1087
105. McCabe, C., Ghez, A. M., Prato, L., Duchêne, G., Fisher, S., & Telesco, C. 2006, "Investigating Disk Evolution: A High Spatial Resolution Mid-Infrared Survey of T Tauri Stars," *ApJ*, 636, 932
106. Bouy, H. Martín, E. L., Brandner, W., Zapatero-Ostorio, M. R., Béjar, V. J. S., Schirmer, M., Huélamo, N., & Ghez, A. M. 2005, "Multiple Systems Among Very Low Mass Stars and Brown Dwarfs in Upper Scorpius," *A&A*, 451, 177
107. Tuthill, P., Monnier, J., Tanner, A., Figer, D., Ghez, A., Danchi, W. 2006, "Pinwheels in the Quintuplet Cluster," *Science*, 313, 935
108. Duchêne, G., Beust, H., Adjali, F., Konopacky, Q., & Ghez, A. M. 2006, "Accurate Stellar Masses in the Multiple System T Tau," *A&A*, 457, L9
109. Lu, J. R., Ghez, A. M., Hornstein, S. D., Morris, M., Matthews, K., Thompson, D. J. & Becklin 2006, "Galactic Center Youth: Orbits and Origins of the Young Stars in the Central Parsec," *Journal of Physics Conference Series*, 54, 279
110. Rafelski, M., Ghez, A. M., Hornstein, S. D., Lu, J. R., & Morris, M. 2006, "Photometric Stellar Variability in the Galactic Center," *Journal of Physics Conference Series*, 54, 316
111. Hornstein, S., Matthews, K., Ghez, A. M., Lu, J. R., Morris, M., Becklin, E. E., Baganoff, F. K., & Rafelski, M. 2006, "Infrared/X-ray Instensity Variations & the Color of Sgr A\*," *Journal of Physics Conference Series*, 54, 399
112. Rafelski, M., Ghez, A. M., Hornstein, S. D., Lu, J. R., Morris, M. 2007, "Photometric Stellar Variability in the Galactic Center," *ApJ*, 659, 1241
113. Morris, M. R., Hornstein, S. D., Ghez, A. M., Lu, J. R., Matthews, K., and Baganoff, F. K. 2007, "Short-Term Variability of Sgr A\*," in proceedings of IAU Symposium No. 238 "Black Holes: from Stars to Glaxies - across the Range of Masses", eds. V. Karas & G. Matt, 238, 195
114. Konopacky, Q. M., Ghez, A. M., Duchêne, G., Macintosh, B. A. 2007, "Measuring the Mass of a Pre-Main Sequence Binary Star Through the Orbit of TWA 5A," *AJ*, 133, 208
115. Konopacky, Q. M., Ghez, A. M., Rice, E. L., & Duchêne, G. 2007 "New Very Low Mass Binaries in the Taurus Star-Forming Region," *ApJ*, 663, 394

116. Tanner, A., Beichman, C., Akeson, R., Ghez, A., Grankin, K. N., Herbst, W., Hillenbrand, L., Huerta, M., Konopacky, Q., Metchev, S., Mohanty, S., Prato, L., Simon, M 2007, *PASP*, 119, 747
117. Hornstein, S., Matthews, K., Ghez, A. M., Lu, J. R., Morris, M., Becklin, E. E., Rafelski, M., Baganoff, F. K., 2007, "A Constant Spectral Index for Sagittarius A\* During Infrared/X-ray Intensity Variations," *ApJ*, in press
118. Duchêne, G., Bontemps, S., Bouvier, J., André, P., Djupvik, A. A., & Ghez, A. M. 2007, "Multiple Protostellar Systems II. A High Resolution Near-Infrared Imaging Survey in Nearby Star-Forming Region," *A&A*, submitted
119. Stolte, A., Ghez, A. M., Morris, M., Lu, J. R., Brandner, W., Matthews, K., 2007, "The Proper Motion of the Arches Cluster with Keck Laser-Guide Star Adaptive Optics," *ApJ*, submitted

**Invited Lectures** (post Jan 2002):

*Scientific Meetings:*

- 07/08/02 Martin Rees 60th Symposium, "Making Light of Gravity," Cambridge, England  
10/21/02 Carnegie Centennial Symposium, "The Co-evolution of Black Holes and Galaxies," Pasadena, CA  
11/07/02 Galactic Center 2002, Kona, Hawaii  
05/05/03 STScI Conference, "The Milky Way and the Local Group," Baltimore, MD  
09/24/03 4th Cologne-Bonn-Zermatt-Symposium, "The Dense Interstellar Medium in Galaxies," Zermatt, Switzerland  
11/13/03 "Formation & Evolution of Stars Near the Galactic Center," Radcliffe Institute Workshop  
01/22/04 IPAM Workshop, "Estimation and Control Problems in Adaptive Optics," UCLA  
01/30/04 IPAM Workshop, "Mathematical Challenges in Astronomical Imaging," UCLA  
03/25/04 Sgr A\* at 30 Workshop, Greenbank, VA  
06/07/04 The Formation of Supermassive Black Holes, Aspen, CO  
06/25/04 Massive Stars in Interacting Binaries, Quebec, Canada  
02/09/05 Planet Formation and Detection, Aspen Center for Physics  
03/21/05 American Physical Society Meeting, Los Angeles, CA  
04/02/05 40 Years of Infrared Astronomy: A Tribute to Eric Becklin, Los Angeles, CA  
04/13/05 American Astronomical Society Division of Dynamical Astronomy Meeting, Santa Barbara, CA  
04/14/05 The Paradoxes of Massive Black Holes, KITP, Santa Barbara, CA  
05/02/05 Section Meeting of Astronomy at the National Academies, Washington, DC  
05/15/06 The History of Nuclear Black Holes in Galaxies, The 4th Harvard-Smithsonian Conference on Theoretical Astrophysics  
03/27/07 Center for Adaptive Optics Spring Retreat (plenary session), Santa Cruz, CA  
06/18/07 Celebrating 15 years of precision astronomy in the Galactic Center - Hot topics and observational challenges, Ringberg Castle, Bavaria, Germany

*Departmental Colloquia:*

- 02/28/02 University of California Los Angeles, Department of Physics and Astronomy  
03/12/02 State University of New York, Stony Brook, Department of Physics and Astronomy  
07/26/02 Very Large Array, NRAO, Socorro, New Mexico  
11/19/02 University of California Los Angeles, Department of Statistics  
01/16/03 University of Arizona, Department of Astronomy / NOAO  
01/29/03 California Institute of Technology, Department of Astronomy  
02/18/03 Princeton, Department of Astronomy  
02/19/03 Columbia, Department of Astronomy  
03/13/03 University of California Berkeley, Department of Astronomy  
04/16/03 University of California Santa Cruz, Department of Astronomy  
11/18/03 Harvard, Theory Group  
11/20/03 Massachusetts Institute of Technology, Department of Physics  
01/16/04 Yale University, Miller-Breit Memorial Lecture, Department of Physics  
01/26/04 NASA Astrobiology Institute, Director's Seminar  
01/28/04 University of California Santa Barbara, Astrophysics Seminar  
02/16/04 University of Chicago, Department of Astronomy  
02/17/04 Northwestern University, Astrophysics Seminar

04/01/04 California Institute of Technology, Department of Physics  
05/03/04 Cornell University, Salpeter Lecture, Department of Physics  
05/06/04 Cornell University, Department of Astronomy  
05/19/04 Tel Aviv University, Department of Physics  
02/28/05 University of California Davis, Department of Physics  
03/29/05 University of Texas at Austin, Department of Astronomy  
03/30/05 University of Michigan, Department of Physics  
04/27/05 Department of Terrestrial Magnetism, Astrophysics Group  
04/27/05 University of Maryland, Department of Astronomy  
06/09/05 University of California Irvine, Department of Physics  
11/07/06 University of California Santa Barbara, Department of Physics  
02/22/07 University of Arizona, Department of Astronomy  
04/16/07 University of Colorado Boulder, Department of Astrophysical and Planetary Sciences

*Public/General Talks:*

03/14/02 California Science Center, Los Angeles CA  
06/21/02 Center for Adaptive Optics Building Dedication, Santa Cruz, CA  
10/14/02 UCLA Chancellors Associates, Pasadena, CA  
11/16/02 UCLA Gold Shield Alumnae Fall Meeting  
02/16/03 American Association for the Advancement of Science, "Adaptive Optics and its Applications," Denver CO  
04/26/03 UCLA Chancellor's Associates, Lake Arrowhead, CA  
06/06/03 Keck Observatory, Astronomy Lunch Seminar Series  
07/22/03 Keck Observatory, Evening Public Lecture Series, Waimea, Hawaii  
10/20/03 UCLA Faculty Research Lecture, Los Angeles, CA  
04/03/04 American Association of Physics Teachers, Southern California Group, Los Angeles, CA  
05/18/04 Sackler Prize Ceremony, Tel Aviv, Israel  
07/01/04 QuarkNet Associate Teacher Institute, UCLA ([www.physics.ucla.edu/hauser/quarknet2004/index.html](http://www.physics.ucla.edu/hauser/quarknet2004/index.html))  
09/01-03/04 Bruin Woods, Lake Arrowhead, CA  
10/10/04 UCLA Gold Shield Ceremony, Los Angeles, CA  
01/23/05 Evening Public Lecture at the Santa Monica Art Studios (organized by K.C. Cole)  
02/16/05 American Academy of Arts & Sciences Reception at UCLA  
05/17/05 Annual Halliday Public Lecture at UCSC  
07/20-26/05 Bruin Woods, Lake Arrowhead, CA  
03/16/06 Keck Observatory, Fund-raising Lecture, Kona, Hawaii  
03/22/06 UCLA Fund-raising Dinner, Berveley Hills, CA  
04/27/06 UCLA Gold Shield Award Dinner, Los Angeles, CA  
05/05/06 UC Academic Advising Convergence, Los Angeles, CA  
05/18/06 Winward High School, Los Angeles, CA  
10/09/06 JPL All Lab Lecture, La Canada, CA  
10/27/06 UCLA Parents Weekend, Los Angeles, CA  
02/23/07 Aaronson Public Lecture, Tucson, AZ  
04/05/07 UCLA Library Associates, 'Food for Thought' Program, Los Angeles, CA  
6/26-07/03/07 Bruin Woods, Lake Arrowhead, CA

## **Other Public Outreach Activities :**

*Selected Features in Popular Magazine/Newspaper/Web Articles/Museum Shows:*

Story "The Mysterious Middle of the Milky Way" in Discover magazine Nov 1998, by David Freedman ([www.discover.com/issues/nov-98/features/themysteriousmid1534/](http://www.discover.com/issues/nov-98/features/themysteriousmid1534/))

Featured on NSF's "Nifty 50" website, a list of 50 NSF-funded inventions, innovations and discoveries to celebrate their 50th Anniversary (April 2000; [www.nsf.gov/od/lpa/nsf50/nsfoutreach/htm/n50\\_z2/pages\\_z3/07\\_pg.htm](http://www.nsf.gov/od/lpa/nsf50/nsfoutreach/htm/n50_z2/pages_z3/07_pg.htm) & [www.nsf.gov/about/history/nsf0050/astronomy/milkyway.htm](http://www.nsf.gov/about/history/nsf0050/astronomy/milkyway.htm))

Featured in "ThePosterProject, Visualizing Women in Science, Mathematics and Engineering," (P. D. Kivelson; <http://www.math.sunysb.edu/posterproject/www/biographies/ghez.html>)

Selected as top 20 scientists in the country under 40 by Discover magazine Oct 2000 ([www.discover.com/issues/oct-00/features/featwatch](http://www.discover.com/issues/oct-00/features/featwatch))

Selected as top 10 2002 science results by Science magazine Dec 2002

Story "The Milky Way's Dark, Starving Pit" in Science magazine May 2003, by Robert Irion

Story "Mystery in the Middle Uncovering a stellar riddle at the Milky Way's core" in Science News June 2003, by Ron Cohen

Story "Shaking Up Black Hole Theory" in LA Times September 2003

Story "Changing Faces of Astronomy" on ScienceCareers.org (January 2006; [http://sciencecareers.sciencemag.org/career\\_development/previous\\_issues/articles/2006\\_01\\_20/changing\\_faces\\_of\\_astronomy](http://sciencecareers.sciencemag.org/career_development/previous_issues/articles/2006_01_20/changing_faces_of_astronomy))

Featured on My Hero website (by J. L. Lee, 2006; [http://myhero.com/myhero/hero.asp?hero=A\\_M\\_Ghez\\_06](http://myhero.com/myhero/hero.asp?hero=A_M_Ghez_06))

Story "An Absolute Revolution" in Keck Observatory's e-magazine Cosmic Matters, (June 2006; [www.keckobservatory.org/support/magazine/2006/june/06june\\_3.htm](http://www.keckobservatory.org/support/magazine/2006/june/06june_3.htm))

Work included in an updated permanent exhibit on the Milky Way in the Ontario Science Center (science and technology museum located in Toronto, Canada) (7/2007)

## *Research in Textbooks:*

"Principles of Astrophysics" by Marc Kutner, 1st edition, Cambridge UP, Undergraduate Introductory Astronomy Textbook for Science Majors

"The Cosmos: Astronomy in the New Millennium" by Pasachoff & Filippenko, 2nd edition, Hartcourt College Publishers, Undergraduate Introductory Text for Non-Science Majors

"My Astronomy: From the Earth to the Universe" by Pasachoff, 6th edition, Saunders College Publishing, Undergraduate Introductory Text for Non-Science Majors

"Gravity: An Introduction to Einstein's General Relativity" by Hartle, 1st edition, Addison-Wesley, Undergraduate General Relativity Textbook

"The Milky Way System" by Kuehn, S. Hirzel Verlag Stuttgart, Popular Science

"Astronomy Today" by Chaisson & McMillan, 4th edition, Prentice Hall, Undergraduate Introductory Text for Non-Science Majors

"Explorations: An Introduction to Astronomy, Stars First" by Arny, 1st edition, McGraw-Hill, Undergraduate Introductory Text for Non-Science Majors

"Understanding the Universe: An Introduction to Astronomy" by Alex Filippenko, 2007 edition, The Teaching Company, Undergraduate Introductory DVD course for Non-Science Majors

"Astrophysics in a Nutshell" by Dan Maoz, 1st edition (2007), Princeton University Press, Upper division undergraduate introduction to astrophysics for physics majors

*Featured in Documentaries/Interviews:*

Discovery, "The Runaway Universe" (Tom Lucas) (A NOVA Production by Thomas Lucas Productions, Inc for WGBH/Boston and Sveriges Television)

The Learning Channel - "Live From a Black Hole" (Geoff Haines-Stiles)

NHK TV Japan, "Space Millennium - Black Hole and Galaxy" (Yasue Drabbe & Yoshi Yuki)

BBC1/The Learning Channel, "Space - Black Holes" (Richard Burke-Ward & Jeremy Turner)

BBC "Horizon - Supermassive Black Holes" (Zoe Heron)

BBC Science "Black Holes" (Annabel Gillings)

Addler Planetarium, video interview and material in Museum exhibit (Grace Wolfe)

Discovery, "Extreme Hawaii" (Laura Netscher & Lisa Sonne)

KBS (Korean Public Broadcast TV) "Science 21" (2003)

Earth & Sky Radio Series (Jorge Salazar, July 2005; <http://www.earthsky.com/shows/astrophysics.php?date=20050707>)

The Science Channel/DCI, update on Horizon's "Supermassive Black Holes" (Paul Gasek, 2005)

Australian Broadcasting Corp, The Science Show, Robyn Williams, (June 17, 2006; <http://www.abc.net.au/rn/scienceshow/stories/2006/1652905.htm>)

Nova, "Monster in the Middle of the Milky Way" (Tom Lucas, Oct 31 2006; <http://www.pbs.org/wgbh/nova/blackhole/>)

History Channel, "The Universe" (Aug 20, 2007)