

Andrea M. Ghez

Education:	California Institute of Technology, Ph.D., Physics	1992
	Massachusetts Institute of Technology, B.S., Physics	1987
Professional Appointments:	University of California Los Angeles	
	Head of Galactic Center Orbits Initiative	2014 - present
	Lauren B. Leichtman & Arthur E. Levine Chair	2009 - present
	Professor of Physics & Astronomy	2000 - present
	Associate Professor of Physics & Astronomy	1997 - 2000
	Assistant Professor of Physics & Astronomy	1994 - 1997
	Hubble Postdoctoral Research Fellow, University of Arizona	1992 - 1993
Awards & Honors:	Sven Berggren Prize, Royal Physiographic Society, Sweden	2017
	Bakerian Medal, The Royal Society of London	2016
	Crafoord Prize in Astronomy, Royal Swedish Acad. of Sciences	2012
	California Institute of Technology Distinguished Alumni Award	2012
	American Philosophical Society, elected	2012
	MacArthur Fellowship	2008
	National Academy of Sciences, elected	2004
	American Academy of Arts & Sciences, elected	2004
	Raymond & Beverly Sackler Prize, University of Tel Aviv	2004
	Newton Lacy Pierce Prize, American Astronomical Society	1998
	Packard Fellowship	1996
	Sloan Fellowship	1996
Distinguished Lectures:	Pappalardo Lecture, MIT	2017
	Brickwedde Lecture, Johns Hopkins	2017
	Heilborn Lecture, Northwestern University	2017
	Ford Lecture, University of Michigan	2017
	Royal Swedish Academy of Sciences Annual Lecture, Sweden	2016
	Gruber Science Fellow Lecture, Yale	2016
	Welsh Lecture, University of Toronto, Canada	2016
	Angstrom Lecture, U. Uppsala /Royal Swedish Acad. of Science	2015
	Walter Stibbs Lecturer, University of Sydney, Australia	2015
	Giving Pledge, Learning Session at Simons Foundation	2015
	National Sci. Found. Distinguished Lecturer, Math & Phys. Sci.	2014
	Henry Primakoff Lectureship, University of Pennsylvania	2014
	McPherson Lectureship, McGill University	2013
	Brinson Lectureship, University of Chicago	2013
	John Bahcall Lectureship, Space Telescope Science Institute	2013
	Icko Iben, Jr. Distinguished Lecturer, University of Illinois	2012
	Bishop Lecturer, Columbia University	2012
	Bunyan Lecturer, Stanford University	2012
	Raymond & Beverly Sackler Lecturer, UC Berkeley	2011
	Whitford Lecturer, University of Wisconsin	2010
	First Eddington Lecturer, Cambridge University/RAS	2009

Recent Service Work¹

National Committees:	Heising-Simons Physics & Astronomy Leadership Council	2017
	NAS Physics ACG Nominating	2015 - present
	External Review Cmte, Dept of Astronomy UCSC	2016
	Am. Acad. of Arts & Science Astronomy Nominating	2016
	Aspen Center for Physics, Meeting Science Organizing	2014 - 2016 (co-chair)
	NAS Class Membership	2013, 2015
	Kavli Frontiers Service Review Panel	2014
	James Craig Watson Medal Selection, NAS	2013 (chair)
	NAS-TNG Nominating	2013, 2014 (chair)
	NAS Astronomy Nominating	2012-13 (co-chair)
Magellanic Premium Prize Selection, Am. Phil. Society	2013	
UC System-Wide Committees:	W. M. Keck Observatory AO Science Council, Chair	2017
	UC TMT Fundraising	2014 - present
	TMT-International Science Definition Team, Black Holes	2013 - present
	UC Observatory Advisory	2012 - present
	W. M. Keck Observatory Science Steering	2010 - present
	W. M. Keck Observatory Director Search	2014
	W. M. Keck Observatory Strategic Planning	2014
	UC Observatories Director Search	2014
	TMT Science Advisory	1999-2013
W. M. Keck Observatory, 20th Anniversary Organizing	2012-2013	
UCLA Campus-Wide or Division Committees:	Vice Chancellor for Academic Personnel Search	2017
	Geffen Academy Working Group	2015 - present
	Physical Sciences Diversity	2015 - present
	Early Care & Education Director Search	2014
	Faculty Research Lectureship Selection	2013, 2014-15(chair)
	Gold Shield Faculty Prize Selection	2013
UCLA Lab School Advisory Board, member	2010-2014	
Department Committees:	Policy & Appointments	2017
	Prize Nominating	2015 - present
	Physics Colloquium	2010 - present
	Astronomy Colloquium Cmte	2008 - 2015
Faculty Search Cmte, Astrodynamics	2012-2013 (chair)	
Galactic Center Orbits Initiative Committees:	Leadership Council	2014 - (chair)
	Data Operations	2014 - (ex-officio)
	Science	2014 - (ex-officio)
	Methodology	2014 - (ex-officio)
Outreach	2014 - (ex-officio)	

¹ NAS = National Academy of Sciences; TNG = Temporary Nominating Group; TMT = Thirty Meter Telescope (UC-Caltech-Canada-Japan-China-India); WMKO = W. M. Keck Observatory (UC-Caltech-NASA); UCO = UC Observatories

Research Group Members (current & former):

Research Scientists & Project Scientists

Gunther Witzel	2015-present
Shoko Sakai	2015-present
Tuan Do	2014-present
Greg Martinez	2014-present
Leo Meyer	2011-2014

Shelley Wright	MS 2004
Mark Rafelski	MS 2006
Kim Phifer	MS 2013
Anna Boehle	MS 2014
Zhuo Chen	(MS 2018)
Kelly Kosmo O'Neal	(MS 2019)

Post Doctoral Researchers

Lisa Prato	1998-2000
Gaspard Duchene	2000-2004
Elise Furlan (NRC Fellow)	2006-2008
Andrea Stolte	2006-2008
Jorg-Uwe Pott (Keck/UCLA)	2007-2009
Marshall Perrin (NSF Fellow)	2007-2010
Nate McCrady	2008-2009
Leo Meyer (DFG Fellow)	2008-2009
Will Clarkson	2008-2010
Sylvana Yelda	2012-2014
Gunther Witzel	2012-2015
Aurelien Hees	2016-present
Anna Ciurlo	2016-present

Undergraduate Students & Lab Assistants

Tracy Beck (1994-1995); Mia Smith (1996); Marlon Jimenez (1996); Jason Weis (1997); Nairn Baliber (1997-1998); Whitney Raas (1998-2000); David Sand (1997-2000); Ted Kremenek (1998-2001); Michele Carpenter (2002); Louis Levenson (2000-2001); Amanda Young (UCSC, 2002); Priya Sheth (2002-2003); Hamadi Macintosh (2003); Fabio Altenbach (2003-2005); Javiera Guedes (UCB, 2004); Lia Corrales (Harvey Mudd, 2005); Jill Naiman (2005-2006); James Dunn (2006-2008); Hal Cambier (U. of Oregon, 2006); Ryan Trainor (UC Irvine, 2007); Claire Dorman (UC Berkeley, 2008); Kim Phifer (Butler University, 2009); Anna Boehle (Smith College, 2010); Josefa Baker (2010); Nara Higano (Gustavus Adolphus, 2011); Ruizhu Chen (Nanjing Univ., 2011); Carina Cheng (2011-2013); Michelle Kelly (Univ. of Ill., 2012); Vaishali Parkash (Union College, 2013); Saundra Albers (2013-2015); Isabel Lipartito (Smith, 2014); Zhou Chen (Nanjing Univ., 2015); Joseph Ahn (2015); Chris O'Connor (2016); Kelly Kosmo (2016-2017); John Mangian (2017); Arezu Dehghanfar (2016-present)

Graduate Students (PhD Projects)

Jennifer Patience	PhD 1999
Russel White	PhD 1999
Angelle Tanner	PhD 2004
Caer McCabe	PhD 2004
Seth Hornstein	PhD 2006
Jessica Lu	PhD 2009
Quinn Konopacky	PhD 2009
Tuan Do	PhD 2010
Sylvana Yelda	PhD 2012
Breann Sitarksi	PhD 2016
Sam Chappell	(PhD 2019)
Devin Chu	(PhD 2020)
Abhimat Guatam	(PhD 2020)

Graduate Students (MS Projects only)

Beth Klein	MS 1995
Mike Berkovitch	MS 1996
Suvi Gezari	MS 2001
Shelley Wright	MS 2004
Suvi Gezari	MS 2001

High School Students

Simone Kleine (Marlborough, 2002); Katie Love-Cooksey (Marlborough, 2005-6); Christopher Ballard (Harvard-Westlake, 2007); Ryan Yoo (Homeschool/UCLA, 2010-11); Stephanie Lega (Van Nuys, 2009); Mateo Godoy (Brentwood, 2015), Ian Watts (Harvard-Westlake, 2015)

Selection of Public Outreach Products:

Documentaries & Museum Exhibits:

- IMAX, “Einstein’s Incredible Universe” (Daniel Ferguson), filming began 2017, expected completion 2019
- NOVA, “Black Hole Apocalypse” (Rush DeNooyer), Jan 2018
- Discovery, “Strip the Cosmos”, (Duncan Bulling), 2014
- Warner Entertainment, Documentary companion to “Interstellar” by Christopher Nolan (Gail Willumsen & Jill Shinefield), 2014
- BBC Horizon, “Swallowed by a Black Hole”, 2013
- NPR, “Morning Edition” on adaptive optics (Joe Palco), June 24 2013
- NPR, “All Things Considered” on black holes (Joe Palco), first aired July 2013
- NHK Japan TV “Black Hole part 2: SuperMassive Black Hole”, 2012
- National Geographic, “Inside the Milky Way” (Coll Metcalfe), 2010
- Thirty Meter Telescope (TMT) Overview Video, (Donna Berry), 2009
- History Channel, “Einstein and The Two Eclipses”, 2008
- NOVA, “Monster of the Milky Way (Tom Lucas), 2006
- Adler Planetarium, video interview and material in Museum exhibit (Grace Wolfe)
- “Black Holes: The Other Side of Infinity” Planetarium show produced by the Denver Museum of Nature & Science in association with the PBS science series, NOVA (2006)
- Griffith Observatory exhibit (opened 2006, Los Angeles, CA)
- Ontario Science Center exhibit (opened July 2007, Toronto Canada)
- National Academy of Sciences Keck Building Lobby exhibit

Content for Textbooks & Other Educational Books:

- “The Cosmos: Astronomy in the New Millennium” by Pasachoff & Filippenko,
- “Astronomy Today” by Chaisson & McMillan
- “Discovering the Universe” by Neil F. Comins
- “Universe” by Roger A. Freedman, Robert M. Geller, and William J. Kaufmann III
- “Gravity’s Fatal Attraction: Black Holes in the Universe” by Mitch Begelman and Martin Rees, Cambridge University Press
- “Behind the Scenes of the Universe: From the Higgs to Dark Matter” by Gianfranco Bertone, Oxford University Press
- “The Universe in 100 Key Discoveries” By Giles Sparrow, Quercus
- “University Physics” by Young and Freedman
- “University Physics with Modern Physics” by Wolfgang Bauer & Gary Westfall
- “Principles of Astrophysics” by Marc Kutner
- “Astrophysics in a Nutshell” by Dan Maoz
- “Principles of Astrophysics: Using Gravity and Stellar Physics to Explore the Cosmos,” by C. Keeton
- “High Energy Astrophysics” by M. Longair
- “General Relativity without Calculus” by Jose Natario
- “Relativity, Astrophysics and Cosmology” by Radoje Belusevic
- “Gravity: An Introduction to Einstein’s General Relativity” by Hartle
- “The Mathematical Theory of Special and General Relativity” by Ashok N. Katti (cover image

Publications:

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, 2943.
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 μm 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 μm 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 μm 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 Pre-Main-Sequence 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., Reid, 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 μm 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., Piña, R. K., Telesco, C. M., Fisher, R., Winzinowich, 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. Telesco, C. M., Fisher, R. S., Piña, 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. Winzinowich, 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, "First Light 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 and Associated Disks," 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., Mcintosh, B. A., Gibbard, S., Gavel, D. T., Roe, H., de Pater, I., Ghez, A. M., Acton, S., Winzinowich, 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
57. 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
58. 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)
59. 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
60. 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

61. 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
62. Prato, L., Ghez, A. M., Pina, R. K., Telesco, C. M., Fisher, R. S., Winzinowich, 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
63. White, R., and Ghez, A. M., 2001 "Observational Constraints on the Formation and Evolution of Binary Stars," *ApJ*, 556, 265
64. Bruggmann, B., Ghez, A. M., Greiner, J. 2001 "Black Holes," *PNAS*, 98, 19, 10525
65. 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
66. Patience, J., Ghez, A. M., Reid, I. N., Matthews, K. 2002 "A High Angular Resolution Multiplicity Survey of the Open Cluster Alpha Persei and Praesepe," *AJ*, 123, 1570
67. 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
68. McCabe, C., Duchêne, & Ghez, A. M. 2002, "NICMOS Images of the GG Tau Circumbinary Disk," *ApJ*, 575, 974
69. 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
70. Hornstein, S. D., Ghez, A. M., Tanner, A., Morris, M., Becklin, E. E., Winzinowich, P., 2002 "Limits on the Short Term Variability of Sagittarius A* in the Near Infrared," *ApJ*, 577L, 9
71. 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
72. 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., Winzinowich, P., Acton, D. S. 2002, "Stellar Companions to Stars with Planets," *ApJ*, 581, 654
73. Max, C. E., McIntosh, B. A., Gibbard, S. G., Gavel, D. T., Roe, H. G., de Pater, I., Ghez, A. M., Acton, S. D., Lai, O., Stomski, P., & Winzinowich, P. L. 2002, "Cloud Structures on Neptune Observed with Keck Telescope Adaptive Optics," *AJ*, 125, 364
74. Patience, J., McIntosh, 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
75. 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
76. 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
77. 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

78. 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
79. Duchêne, D., Ghez, A. M., McCabe, C., Weinberger, A. 2003 "No Fossil Disk in the T Tauri Multiple System V773 Tauri," *ApJ*, 592, 288
80. 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
81. 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
82. 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
83. Macintosh, B. A., Gavel, D., Givvard, S. G., Max, C. E., Eckart, M., de Pater, I., Ghez, A. M., Spencer, J. 2003, "Speckle Imaging of Volcanic Hotspots on Io with the Keck Telescope," *Icarus*, 165, 137
84. 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)
85. 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
86. 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
87. 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
88. 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
89. Bouy, H., Duchêne, G., Köhler, R., Brandner, W., Bouvier, J., Martin, E. L., Ghez, A., Delfosse, T., Forveille, T., Allard, F., Barffe, I., Basri, G., Close, L., McCabe, C. E. 2004 "First determination of the dynamical mass of a binary L dwarf," *A&A*, 423, 341
90. Patience, J., Mcintosh, B., Shuping, R., & Ghez, A. 2005, "A Keck Adaptive Optics Survey of the Trapezium," *Protostars and Planets V*, p. 8503
91. Konopacky, Q. M., Ghez, A. M., Altenbach, F., McCabe, C., Duchêne, G., White, R. J., & Macintosh, B. A. 2005 "Dynamical Masses of Pre-Main Sequence Visual Binary Stars," *Protostars and Planets V*, 8541
92. 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

93. McCabe, C., Duchêne, 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
94. Beck, T. L., Schaefer, G. H., Duchêne, G., & Ghez, A. M. 2005 “T Tau: An Enigmatic Eponym,” *Protostars and Planets V*, 8643
95. 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
96. 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
97. Weinberg, N. N., Milosavljevic, M., Ghez, A. M., 2005 “Stellar Dynamics at the Galactic Center with an Extremely Large Telescope,” *ApJ*, 622, 878
98. Muno, 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
99. 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
100. 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*, 62551
101. Blake, C. H. et al. 2005, “An Infrared Flash Contemporaneous with the X-rays of GRB 041219a,” *Nature*, 435, 181
102. 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
103. 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
104. Muno, 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
105. Ghez, A. M., Hornstein, S. D., Lu, J. R., Bouchez, A., Le Mignant, D., van Dam, M. A., Winzinowich, 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
106. 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
107. Bouy, H., Martín, E. L., Brandner, W., Zapatero-Ostorio, M. R., Béjar, V. J. S., Schirmer, M., Huélamo, N., & Ghez, A. M. 2005, “Multiplicity of very low-mass objects in the Upper Scorpius OB association: a possible wide binary population,” *A&A*, 451, 177
108. Tuthill, P., Monnier, J., Tanner, A., Figer, D., Ghez, A., Danchi, W. 2006, “Pinwheels in the Quintuplet Cluster,” *Science*, 313, 935

109. 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
110. 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
111. 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
112. Hornstein, S., Matthews, K., Ghez, A. M., Lu, J. R., Morris, M., Becklin, E. E., Baganoff, F. K., & Rafelski, M. 2006, “Infrared/X-ray Intensity Variations & the Color of Sgr A*,” *Journal of Physics Conference Series*, 54, 399
113. Rafelski, M., Ghez, A. M., Hornstein, S. D., Lu, J. R., Morris, M. 2007, “Photometric Stellar Variability in the Galactic Center,” *ApJ*, 659, 1241
114. 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 Galaxies - across the Range of Masses”, eds. V. Karas & G. Matt, 238, 195
115. 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
116. Konopacky, Q. M., Ghez, A. M., Rice, E. L., & Duchêne, G. 2007 “New Very Low Mass 663, Binaries in the Taurus Star-Forming Region,” *ApJ*, 394
117. 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, “SIM PlanetQuest Key Project Precursor Observations to Detect Gas Giant Planets around Young Stars,” *PASP*, 119, 747
118. 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*, 667, 900
119. 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*, 476, 229
120. Boden, A. F., Torres, G., Sargent, A. I., Akeson, R. L., Carpenter, J. M., Boboltz, D. A., Massi, M., Ghez, A. M., Latham, D. W., Johnston, J. K., Menten, K. M., Ros, E. 2007, “Dynamical Masses for Pre-Main-Sequence Stars: A Preliminary Physical Orbit for V773 Tau A,” *ApJ*, 670, 1214
121. 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*, 675, 1278
122. Bouy, H., Martin, E., Brandner, W., Forveille, T., Delfosse, X., Huéramo, N., Basri, G., Girard, J., Zapatero Osorio, M. R., Stumpf, M., Ghez, A., Valdivielso, L., Marchis, F., Burgasser, A. J., Cruz, K. 2008 “Follow-up Observations of Binary Ultra-Cool Dwarfs,” *A&A*, 481, 757
123. Marrone, D. P., Baganoff, F. K., Morris, M., Moran, J. M., Ghez, A. M., Hornstein, S. D., Dowell, C. D., Munoz, D. J., Bautz, M. W., Ricker, G. R., Brandt, W. N., Gamire, J. R., Lu, J. R., Matthews, K., Zhao, J. H., Rao, R., & Bower, G. C. 2008, “An X-Ray, Infrared, and Submillimeter Flare of Sagittarius A*,” *ApJ*, 682, 373

124. Ghez, A. M., Salim, S., Weinberg, N., Lu, J., Do, T., Dunn, J. K., Matthews, K., Morris, M., Yelda, S., Becklin, E. E. 2008, "Probing the properties of the Milky Way's central supermassive black hole with stellar orbits," IAU Symposium, 248, 52
125. Pott, J. U., Eckart, A., Glindemann, A., Kraus, S., Schödel, R., Ghez, A.M., Woillez, J., Weigelt, G. 2008, "First VLTI infrared spectro-interferometry on GCIRS 7. Characterizing the prime reference source for Galactic Center observations at highest angular resolution," A&A, 487, 413
126. Smith, N., Foley, R. J., Bloom, J. S., Li, W., Filippenko, A. V., Gavazzi, R., Ghez, A., Konopacky, Q., Malkan, M. A., Marshall, P. J., Pooley, D., Treu, T., Woo, J. H. 2008, "Late-Time Observations of SN 2006gy: Still Going Strong," ApJ, 686, 485
127. Do, T., Ghez, A. M., Morris, M. R., Yelda, S., Lu, J. R., Hornstein, S. D., Matthews, K. 2008, "Testing for periodicities in near-IR light curves of Sgr A*," Journal of Physics Conference Series, 131, 012003
128. Lu, J. Ghez, A. M., Hornstein, S. D., Morris, M. R., Becklin, E. E., Matthews, K., "Orbits and Origins of the Young Stars in the Central Parsec of the Galaxy," 2008, Journal of Physics Conference Series, 131, 012012
129. Pott, J. U., Eckart, A., Ghez, A., Kraus, S. 2008, "Science with large-aperture infrared interferometry - size does matter or talking about a new tool to study the galactic center," Journal of Physics Conference Series, 131, 012014
130. Stolte, A., Ghez, A. M., Morris, M. R., Lu, J. R., Brandner, W., & Matthews, K. 2008, "The orbital motion of the Arches cluster clues on cluster formation near the galactic center," Journal of Physics Conference Series, 131, 012015
131. Meyer, L., Do, T., Ghez, A. M., Morris, M. R., Witzel, G., Eckart, A., B'elagner, G., Schödel, R. 2008, "A 600 Minute Near-Infrared Lightcurve of Sagittarius A*," ApJLett, 688, L17
132. Ghez, A. M., Salim, S., Weinberg, N. N., Lu, J. R., Do, T., Dunn, J. K., Matthews, K., Morris, M., Yelda, S., Becklin, E. E., Kremenek, T., Milosavljevic, M., Naiman, J., 2008, "Measuring Distance and Properties of the Milky Way's Central Supermassive Black Hole with Stellar Orbits," ApJ, 689, 1044
133. Beichman, C., et al. 2009, "Formation and Evolution of Planetary Systems," Astro2010: The Astronomy and Astrophysics Decadal Survey, 2010, 15
134. Ghez, A., et al. 2009, "The Galactic Center: A Laboratory for Fundamental Astrophysics and Galactic Nuclei," Astro2010: The Astronomy and Astrophysics Decadal Survey, 2010, 89 (arXiv:0903.0383)
135. Lu, J. R., McCrady, N., Krumholz, M., Ghez, A., Kraus, A., Wright, S., & Goto, M. 2009, "Star Formation's Dependence on Environment," Astro2010: The Astronomy and Astrophysics Decadal Survey, 2010, 187
136. Morris, M., et al. 2009, "Explorations of the Massive Molecular Reservoir at The Galactic Center," Astro2010: The Astronomy and Astrophysics Decadal Survey, 2010, 213
137. Lu, J. Ghez, A. M., Hornstein, S. D., Morris, M. R., Becklin, E. E., Matthews, K., "A Disk of Young Stars at the Galactic Center as Determined by Individual Stellar Orbits," 2009, ApJ, 690, 1463
138. Konopacky, Q. M., Ghez, A. M., Barman, T. S., Rice, E. L., McLean, I. S., & Duchêne, G. 2009, "High Precision Dynamical Masses for Brown Dwarf Binaries," American Institute of Physics Conference Series, 1094, 112

139. Do, T., Ghez, A. M., Morris, M. R., Yelda, S., Lu, J. R., Hornstein, S. D., Matthews, K. 2008, "A Near-infrared Variability Study of Our Galactic Black Hole: A Red Noise Source with No Detected Periodicity," *ApJ*, 691, 1021
140. Meyer, L., Do, T., Ghez, A., Morris, M. R., Yelda, S., Schödel, R., & Eckart, A. 2009, "A Power-Law Break in the Near-Infrared Power Spectrum of the Galactic Center Black Hole," *ApJLett*, 694, L87
141. Baldwin-Saavedra, C., Audard, M., Duchêne, G., Gu'del, M., Skinner, S. L., Paerels, F. B. S., Ghez, A., McCabe, C. 2009, "HDE 245059: A Weak-Lined T Tauri Binary Revealed by Chandra and Keck," *ApJ*, 697, 493
142. Do, T., Ghez, A. M., Morris, M. R., Lu, J., Matthews, K., Yelda, S., & Larkin, J. 2009, "High Angular Resolution Integral-field Spectroscopy of the Galaxy's Nuclear Cluster: A Missing Stellar Cusp?" *ApJ*, 703, 1323
143. Pott, J. U., Woillez, J., Akeson, R., L., Berkey, B., Colavita, M. M., Copper, A., Eisner, J. A., Ghez, A. M., Graham, J. R., Hellenbrand, L., Hrynewych, M., Mediros, D., Millan-Gabet, R., Monnier, J., Morrison, D., Panteleeva, T., Quataert, E., Randolph, B., SMith, B., Summers, K., Tsubota, K., Tyau, C., Weinberg, N., Wetherell, D., Winzinowich, P. L. 2009, "Astrometry with the Keck Interferometer: The ASTRA Project and its Science," *New Astronomy Reviews*, 53, 11
144. Stolte, A., Ghez, A., Morris, M., Lu, J., Brandner, W., Matthews, K. 2009, "The Orbital Motion of the Arches Cluster: Clues on Cluster Formation Near the Galactic Center," *Ap&SS*, 324, 137
145. Pott, J. U., Perrin, M. D., Furlan, E., Metchev, S., Ghez, A., & Herbst, T. 2010, "Ruling Out Stellar Companions and Resolving the Innermost Regions of Transitional Disks with the Keck Interferometer," *ApJ*, 710, 265
146. Konopacky, Q. M., Ghez, A. M., Barman, T. S., Rice, E. L., Bailey, J. I. III, White, R. J., McLean, I. S., Duchêne, G. 2010, "High Precision Dynamical Masses of Very Low Mass Binaries," *ApJ*, 711, 1087
147. Duchêne, G., McCabe, C., Pinte, C., Stapelfeldt, K. R., Ménard, F., Duvert, G., Ghez, A. M., Maness, H. L., Bouy, H., Barrado Y Navaschués, D., Morales-Calderon, M., Wolf, S., Padgett, D. L., Brooke, T. Y., & Noriega-Crespo, A. 2010, "Panchromatic Observations and Modeling of the HV Tau C Edge-on Disk," *ApJ*, 712, 112
148. Smith, N., Miller, A., Weidong, L., Filippenko, A. V., Silverman, J. M., Howard, A. W., Nugent, P., Marcy, G. W., Bloom, J., Ghez, A. M., Lu, J., Yelda, S., Bernstein, R. A., Colucci, J. E. 2010, "Discovery of Precursor LBV Outbursts in Two Recent Optical Transients: The Fitfully Variable Missing Links UGC 2773-OT and SN 2009ip," *AJ*, 139, 1451
149. Eisenhardt, P. R. M., Griffith, R. L., Stern, D., Ashby, M. L. N., Brodwin, M., Brown, M. J. I., Dey, A., Ghez, A. M., Glikman, E., Gonzalez, A. H., Kirkpatrick, J. D., Konopacky, Q., Mainzer, Candidates Selected at 4.5 μm ," *AJ*, 139, 2455
150. Pott, J. U., Malkan, M. A., Elitzur, M., Ghez, A. M., Herbst, T. M., Schödel, R., Woillez, J. 2010, "Luminosity-variation Independent Location of the Circum-nuclear, Host Dust in NGC 4151," *ApJ*, 715, 736
151. Pott, J. U., Woillez, J., Ragland, S., Winzinowich, P. L., Eisner, J. A., Monnier, J. D., Akeson, R. L., Ghez, A. M., Graham, J. R., Hillenbrand, L. A., Millan-Gabet, R., Appleby, E., Berkey, B., Colavita, M. M., Cooper, A., Felizardo, C., Herstein, J., Hrynevych, M., Medeiros, D.,

- Morrison, D., Panteleeva, T., Smith, B., Summers, K. Tsubota, K. Tyau, C., Wetherell, E. 2010 “First Keck Interferometer Measurements in Self-phase Referencing Mode: Spatially Resolving Circumstellar Line Emission of 48 Lib,” SPIE Proceedings, 7734
152. Eisner, J. A., Akeson, R., Colavita, M., Ghez, A., Graham, J., Hillenbrand, L., Millan-Gabet, R., Monnier, J. D., Pott, J. U., Ragland, S., Winzinowich, P., Woillez, J. 2010 “Science with the Keck Interferometer ASTRA Program,” SPIE Proceedings, 7734
153. Woillez, J., Akeson, R., Colavita, M., Eisner, J., Ghez, A., Graham, J., Hillenbrand, L., Millan-Gabet, R., Monnier, J., Pott, J. U., Ragland, S., Winzinowich, P., Ableby, E., Berkey, B., Cooper, A., Felizardo, C., Herstein, J., Hrynevych, M., Martin, O., Medeiros, D., Morrison, D., Panteleeva, T., Smith, B., Summers, K., Tsubota, K., Tyau, C., Wetherell, E. 2010, “ASTRA: Astrometry and Phase-referencing Astronomy on the Keck Interferometer,” SPIE Proceedings, 7734
154. Barton, E. J., Larkin, J. E., Moore, A. M., Wright, S. A., Crampton, D., Simard, L., Macintosh, B., Co[^]te, P., Barth, A., Ghez, A. M., Lu, J., Davidge, T. J., Law, D. R., and the IRIS Science Team, 2010 “The Infrared Imaging Spectrograph (IRIS) for TMT: The Science Case,” SPIE Proceedings, 7735
155. Lu, J. R., Ghez, A. M., Yelda, S., Do, T., Clarkson, W., McCrady, N., Morris, M. 2010 “Recent Results and Perspectives for Precision Astrometry and Photometry with Adaptive Optics,” SPIE Proceedings, 7736
156. Stolte, A., Morris, M. R., Ghez, A. M., Do, T., Lu, J. R., Ballard, C., Mills, E., Matthews, K. 2009, “Disks in the Arches cluster - survival in a starburst environment,” ApJ, 718, 810
157. Pott, J.-U., Ragland, S., Winzinowich, P.L., Eisner, J. A., Monnier, J. D., Akeson, R. L., Ghez, A. M., Graham, J. R., Hillenbrand, L. A., Millan-Gabet, R., Appleby, E., Berkey, B., Colavita, M. M., Cooper, A., Felizardo, C., Herstein, J., Hrynevych, M., Medeiros, D., Morrison, D., Panteleeva, T., Smith, B., Summers, K., Tsubota, K., Tyau, C., Wetherell, E., 2010, “Probing Local Density Inhomogeneities in the Circumstellar Disk of a Be Star Using the New Spectro-astrometry Mode at the Keck Interferometer,” ApJ, 721, 802
158. Yelda, S., Lu, J. R., Ghez, A. M., Clarkson, W., Anderson, J., Do, T., Matthews, K. 2010, “Improving Galactic Center Astrometry by Reducing the Effects of Geometric Distortion,” ApJ, 725, 331
159. McCabe, C., Duch[^]ene, G., Pinte, C., Stapelfeldt, K. R., Ghez, A. M., & Ménard, F. 2010, “Spatially Resolving the HK Tau B Edge-on Disk from 1.2 - 4.7 μ m: A Unique Scattered Light Disk,” ApJ, 727, 90
160. Clarkson, W., Lu, J. R., Ghez, A. M., Morris, M. R., McCrady, N., Stolte, A., & Yelda, S. 2011, “A Sharper Look at the Motion of Stars in the Arches with Keck-LGS Adaptive Optics,” Astronomical Society of the Pacific Conference Series, 439, 119
161. McCrady, N., Lu, J., Clarkson, W., Ghez, A., Morris, M. R., Stolte, A., & Yelda, S. 2011, “Using LGS AO to Measure the Arches Mass Function,” Astronomical Society of the Pacific Conference Series, 439, 121
162. Yelda, S., Ghez, A. M., Lu, J. R., Do, T., Clarkson, W., & Matthews, K. 2011, “Increasing the Scientific Return of Stellar Orbits at the Galactic Center,” Astronomical Society of the Pacific Conference Series, 439, 167

163. Do, T., Ghez, A. M., Morris, M. R., Lu, J. R., Matthews, K., Yelda, S., Wright, S., & Larkin, J. 2011, "Testing Stellar Cusp Formation Theories with Observations of the Milky Way Nuclear Star Cluster," *Astronomical Society of the Pacific Conference Series*, 439, 200
164. Lu, J. R., Clarkson, W., McCrady, N., et al. 2011, "Clarifying our View of Star Formation in Massive Young Clusters with Adaptive Optics," *UP2010: Have Observations Revealed a Variable Upper End of the Initial Mass Function?* 440, 63
165. Konopacky, Q. M., Ghez, A. M., Macintosh, B. A., et al. 2011, "Rotational Velocities of Very Low Mass Binaries," *16th Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun*, 448, 147
166. Ghez, A. M., Morris, M. R., Do, T., et al. 2012, "Bringing our Galaxy's Central Supermassive Black Hole and its Environs into Focus with Laser Guide Star Adaptive Optics," *Twelfth Marcel Grossmann Meeting on General Relativity*, 420
167. Boden, A. F., Torres, G., Duchêne, G., Konopacky, Q., Ghez, A. M., Torres, R. M., Loinard, L. 2012, "A Surprising Dynamical Mass of V773 Tau B," *ApJ*, 747, 17
168. Konopacky, Q. M., Ghez, A. M., Fabrycky, D. C., Macintosh, B. A., White, R. J., Barman, T. S., Rich, E. L., Hallinan, G., Duchêne, G. 2012 "Rotational Velocities of Individual Components in Very Low Mass Binaries," *ApJ*, 750, 79
169. Clarkson, W. I., Ghez, A. M., Morris, M. R., Lu, J. R., Stolte, A., McCrady, N., Do, T., & Yelda, S. 2011 "Proper Motions of the Arches Cluster with Keck LGS-Adaptive Optics: The First Kinematic Mass Measurement of the Arches," *ApJ*, 751, 132
170. Do, T., Ghez, A., Lu, J. R., Morris, M. R., Yelda, S., Martinez, G. D., Peter, A. H. G., Wright, S., Bullock, J., Kaplinghat, M., Matthews, K., 2012, "Measuring the stellar luminosity function and spatial density profile of the inner 0.5 pc of the Milky Way nuclear star cluster," *Journal of Physics Conference Series*, 372, 012016
171. Yelda, S., Ghez, A. M., Lu, J. R., Do, T., Meyer, L., Morris, M. R., 2012, "Adaptive Optics Observations of the Galactic Center Young Stars," *SPIE*, 8447
172. Fitzgerald, M. P., Witzel, G., Britton, M. C., Ghez, A. M., Meyer, L., Sitarski, B. N., Cheng, C., Becklin, E. E., Campbell, R. D., Do, T., Lu, J. R., Matthews, K., Morris, M. R., Neyman, C. R., Tyler, G. A., Winzinowich, P. L., Yelda, S. 2012 "Modeling anisoplanatism in the Keck II laser guide star AO system," *SPIE*, 8447
173. Stone, J. M., Eisner, J. A., Monnier, J. D., Woillez, J., Winzinowich, P., Pott, J.-U., Ghez, A. M., 2012 "Disentangling Confused Stars at the Galactic Center with Long Baseline Infrared Interferometry," *ApJ*, 754, 151
174. Morris, M. R., Meyer, L., Ghez, A. M., 2012, "Galactic center research: manifestations of the central black hole," *Research in Astronomy and Astrophysics*, 12, 995
175. Meyer, L., Ghez, A. M., Schoedel, R., Yelda, S., Boehle, A., Lu, J. R., Do, T., Morris, M. R., Becklin, E. E., Matthews, K. 2012, "The Shortest Known Period Star Orbiting our Galaxy's Supermassive Black Hole," *Science*, 338, 84
176. Do, T., Lu, J. R., Ghez, A. M., Morris, M. R., Yelda, S., Martinez, G., Wright, S. A., Matthews, K. 2013, "Stellar Populations in the Central 0.5 pc of the Galaxy I: A New Method for Constructing Luminosity Functions and Surface-Density Profiles," *ApJ*, 764, 154
177. Lu, J. R., Do, T., Ghez, A. M., Morris, M. R., Yelda, S., Matthews, K. 2013, "Stellar Populations in the Central 0.5 pc of the Galaxy II: The Initial Mass Function," *ApJ*, 764, 155

178. Schoedel, R., Yelda, S., Ghez, A., Girard, J. H., Labadie, L., Rebolo, R., Perez-Garrido, A., Morris, M. R., 2013 “Holographic Imaging of Crowded Fields: High Angular Resolution Imaging with Excellent Quality at Very Low Cost,” *MNRAS*, 429, 1367
179. Sitarski, B. N., Morris, M. R., Lu, J. R., Duchêne, G., Stotle, A., Becklin E. E., Ghez, A. M., Zinnecker, H. 2013, *ApJ*, 770, 134
180. Duchêne, G., Bouvier, J., Moraux, E., Bouy, H., Konopacky, Q., Ghez, A. M. 2013 “Substellar Multiplicity in the Hyades Cluster,” *A&A*, 555, 137
181. Phifer, K., Do, T., Meyer, L., Ghez, A. M., Witzel, G., Yelda, S., Boehle, A., Lu, J. R., Morris, M. R., Becklin, E. E., Matthews, K. 2013 “Keck Observations of the Galactic Center Source G2: Gas Cloud or Star?” *ApJ*, 773, L13
182. Correia, S., Duchêne, G., Reipurth, B., Zinnecker, H., Daemgen, S., Petr-Cotzens, M. G., Koehler, R., Ratzka, Th., Aspin, C., Konopacky, Q. M., Ghez, A. M. 2013, “Stellar and circumstellar properties of visual binaries in the Orion Nebula Cluster,” *A&A*, 557, 63
183. Yelda, S., Meyer, L., Ghez, A., Do, T. 2013, “Astrometry in the Galactic Center with the Thirty Meter Telescope,” *AO4ELT3 Conference Proceedings*
184. Do, T., Martinez, G. D., Yelda, A., Ghez, A., Bullock, J., Kapling, M., Lu, J. R., Peter, A. G. H., Phifer, K. 2013 “Three-dimensional Stellar Kinematics at the Galactic Center: Measuring the Nuclear Star Cluster Spatial Density Profile, Black Hole Mass, and Distance,” *ApJ*, 779, 6
185. Duchêne, G., Stapelfeldt, K., Isella, A., Perrin, M., Ménard, F., Padgett, D., Pinte, C., Wolff, S., Krist, J., Ghez, A., Konopacky, Q. 2014, “Panchromatic imaging and modeling of SSTtau J042021+281349: A new prototypical edge-on protoplanetary disk,” in *Exploring the Formation and Evolution of Planetary Systems*, IAU Symposium, Volume 299, pp. 111-112
186. Yelda, S., Ghez, A. M., Lu, J. R., Do, T., Meyer, L., Morris, M. R., Matthews, K. 2014, “Properties of the Remnant Clockwise Disk of Young Stars in the Galactic Center,” *ApJ*, 783, 131
187. Ghez, A. M., Witzel, G., Sitarski, B., Meyer, L., Yelda, S., Boehle, A., Becklin, E. E., Campbell, R., Canalizo, G., Do, T., Lu, J. R., Matthews, K., Morris, M. R., Stockton, A. 2014 “Detection of Galactic Center Source G2 at 3.8 microns during Periapse Passage,” *Astronomer’s Telegram* #6110
188. Paumard, T., Morris, M. R., Do, T., & Ghez, A. 2014, “Regularized OSIRIS 3D spectroscopy at the circumnuclear disk ionization front,” *IAU Symposium*, 303, 109
189. Lu, J. R., Ghez, A. M., Morris, M. R., et al. 2014, “Young stars in the Galactic Center,” *IAU Symposium*, 303, 211
190. Boehle, A., Schödel, R., Meyer, L., Ghez, A., 2014 “New Orbital Analysis of Stars at the Galactic Center Using Speckle Holography and Orbital Priors,” *IAU Symposium*, 303, 242
191. Meyer, L., Ghez, A. M., Witzel, G., Do, T., Phifer, K., Sitarski, B., Morris, M. R., Boehle, A., Yelda, S., Lu, J. R., Becklin, E., 2014 “The Keplerian Orbit of G2,” *IAU Symposium* 303, 264
192. Witzel, G., Morris, M., Ghez, A., Meyer, L., Becklin, E., Matthews, K., Lu, J., Do, T., Campbell, R. 2014 “Near Infrared Variability of SgrA* - Spectral Index Measurements,” *IAU Symposium*, 303, 274

193. Todorov, K. O., Luhman, K. L., Konopacky, Q. M., McLeod, K. K., Apai, D., Ghez, A. M., Pasucci, I., Robberto, M. 2014 "A Search for Companions to Brown Dwarfs in the Taurus and Chamaeleon Star Forming Regions," *ApJ*, 788, 40
194. Stolte, A., Hubmann, B., Morris, M. R., Ghez, A. M., Brandner, W., Lu, J. R., Matthews, K., Clarkson, W. 2014 "The Orbital Motion of the Quintuplet Cluster - A common origin for the Arches and Quintuplet clusters?," *ApJ*, 789, 115
195. Bower, G. C., Markoff, S., Brunthaler, A., et al. 2014, "The Intrinsic Two-dimensional Size of Sagittarius A*," *ApJ*, 790, 1
196. Wright, S. A., Larkin, J. E., Moore, A. M., et al. 2014, "The infrared imaging spectrograph (IRIS) for TMT: overview of innovative science programs," *Proceedings of SPIE*, 9147, 91479S
197. Lu, J. R., Neichel, B., Anderson, J., et al. 2014, "Near-infrared astrometry of star clusters with different flavors of adaptive optics and HST," *Proceedings of SPIE*, 9148, 91480B
198. Meyer, L., Witzel, G., Longstaff, F. A., Ghez, A. M. 2014, "A Formal Method for Identifying Distinct States of Variability in Time-Varying Sources: SgrA* as an Example," *ApJ*, 791, 24
199. Sitarski, B. N., Witzel, G., Fitzgerald, M. P., et al. 2014, "Modeling instrumental field-dependent aberrations in the NIRC2 instrument on the Keck II telescope," *Proceedings of SPIE*, 9148, 91486T
200. Hora, J. L., Witzel, G., Ashby, M. L. N., Becklin, E. E., Carey, S., Fazio, G. G., Ghez, A., Ingalls, J., Meyer, L., Morris, M. R., Smith, H. A., Willner, S., "Spitzer/IRAC Observations of the Variability of SgrA* and the Object G2 at 4.5 μm ," *ApJ*, 793, 120
201. Witzel, G., Ghez, A. M., Morris, M. R., Sitarski, B. N., Boehle, A., Naoz, S., Campbell, R., Becklin E. E., Canalizo, G., Chappell, S., Do, T., Lu, J. R., Matthews, K., Meyer, L., Stockton, A., Winzinowich, P., Yelda, S. 2014, "Detection of Galactic Center Source G2 at 3.8 μm during Periapse Passage," *ApJ*, 796, 8
202. Stottle, A., Hubmann, B., Olczak, C., Brandner, W., Habibi, M., Ghez, A. M., Morris, M., Lu, J. R. 2014 "Circumstellar discs in Galactic center clusters: Disc-bearing B-type stars in the Quintuplet and Arches cluster," *A&A*, 578, A4
203. Stostad, M. N., Do, T., Murray, N., et al. 2015, "Mapping the Outer Edge of the Young Stellar Cluster in the Galactic Center," *ApJ*, 808, 106
204. Ghez, A. M., et al. 2013, "Astrometry with Ground-Based Diffraction-Limited Imaging", to be included in textbook "Astrometry for Astrophysics: Methods, Models, and Applications" ed. W. van Altena, Cambridge University Press, 142
205. Do, T., Kerzendorf, W., Winsor, N., Støstad, M., Morris, M., Lu, J. R., Ghez, A. M., et al. 2015, "Discovery of low-metallicity stars in the central parsec of the Milky Way," *ApJ* 809, 143
206. Hosek, M., Lu, J. R., Anderson, J., Ghez, A. M., Morris, M., Clarkson, W., "The Arches Cluster: Extended Structure and Tidal Radius," *ApJ*, 813, 27
207. Skidmore, W., TMT International Science Development Teams, Science Advisory Committee, TMT, et al. 2015 "Thirty Meter Telescope Detailed Science Case," *Research in Astronomy and Astrophysics*, 15, 12, 1945
208. Wright, S. A., Walth, G., Do, T., et al. 2016, "The infrared imaging spectrograph (IRIS) for TMT: latest science cases and simulations," *Proceedings of SPIE*, 9909, 990905
209. Witzel, G., Lu, J. R.; Ghez, A. M. et al., "The AIROPA software package: milestones for testing general relativity in the strong gravity regime with AO," *Proceedings of SPIE*, 9909, 99091O

210. Ragland, S., Jolissaint, L., Wizinowich, P. et al. 2016, "Point spread function determination for Keck adaptive optics," Proceedings of SPIE 9909, 99091P
211. Stephan, A.; Naoz, S.; Ghez, A. M.; Witzel, G., Sitarski, B.; Do, T., Kocsis, B., et al. 2015 "Merging Binaries in the Galactic Center: The eccentric Kozai-Lidov mechanism with stellar evolution," MNRAS, 460, 3494
212. Service, M., Lu, J. R., Campbell, R., Sitarski, B., Ghez, A. M., Anderson, J., 2016 "A New Distortion Solution for NIRC 2 on the Keck II Telescope." PASP, 128, 5004
213. Boehle, A., Ghez, A. M., Schödel, R., Meyer, L., Yelda, S., Albers, S., Becklin, E. E., Do, T., Lu, J. R., Martinez, G. D., Matthews, K., Morris, M. Sitarski, B., Witzel, G., 2016 "An Improved Distance and Mass Estimate for Sgr A* from a Multi-Star Orbital Analysis," ApJ, 830, 17
214. Do, T., Ghez, A., Morris, M. et al. 2017 "Observational constraints on the formation and evolution of the Milky Way nuclear star cluster with Keck and Gemini," The Multi-Messenger Astrophysics of the Galactic Centre, 322, 222
215. Chappell, S. N., Ghez A. M., Do, T. et al. 2017 "The late-type stellar density profile in the Galactic Center: A statistical approach," The Multi-Messenger Astrophysics of the Galactic Centre, 322, 235
216. Gautam, A. K., Do, T., Ghez, A. M. et al. 2017 "Constraining the Variability and Binary Fraction of Galactic Center Young Stars," The Multi-Messenger Astrophysics of the Galactic Centre, 322, 239
217. Hees, A., Do, T., Ghez, A. M. et al. 2017 "Testing General Relativity with Stellar Orbits around the Supermassive Black Hole in Our Galactic Center," Physical Review Letters, 118, 211101
218. Witzel, G, Sitarski, B., Ghez. et al. 2017 "The Post-Periape Evolution of Galactic Center Source G1: The Second Case of a Resolved Tidal Interaction with a Supermassvie Black Hole" ApJ, 847, 80
219. Chu, D. S., Do, T., Hees, A., Ghez, A. et al. 2017 "Investigating the Binarity of S0-2: Implications for its Origins and Robustness as a Probe of the Laws of Gravity around a Supermassive Black Hole," ApJ, accepted arXiv:1709.04890
220. Dong, H., Schoedel, R., Williams, B. et al. 2017, "Near-infrared variability study of the central 2.3 arcmin \times 2.3 arcmin of the Galactic Centre - I. Catalogue of variable sources," MNRAS, 470, 3427
221. Lockart, K. E., Lu, J. R., Peiris, H. V., Rich, R. M., Bouchez, A., Ghez, A. M. "A Slowly Precessing Disk in the Nucleus of M31 as the Feeding Mechanism for a Central Starburst," ApJ, submitted arXiv:1710.01394
222. Dong, H., Schoedel, R., Williams, B. et al. 2017 "Near-infrared variability study of the central 2.3 \times 2.3 arcmin² of the Galactic Centre - II. Identification of RR Lyrae stars in the Milky Way nuclear star cluster," MNRAS, 471, 3617