

Andrea M. Ghez

Curriculum Vitae (*updated March 30, 2020*)

Education:	California Institute of Technology, Ph.D., Physics	1992
	Massachusetts Institute of Technology, B.S., Physics	1987
Professional Appointments:	University of California Los Angeles	
	Founding Director of the Galactic Center Orbits Initiative	2014 - present
	Lauren B. Leichtman & Arthur E. Levine Chair	2009 - present
	Distinguished Professor of Physics & Astronomy	2012 - 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
Major Awards & Honors:	Nobel Prize in Physics	2020
	Science and Education Pioneer Award at UCLA	2020
	Honorary Doctorate of Science, University of Oxford	2019
	California Academy of Sciences, elected	2018
	Bakerian Medal, The Royal Society of London	2016
	Woman of Distinction Award, UCLA Faculty Women's Club	2016
	Crafoord Prize in Astronomy, Royal Swedish Acad. of Sciences	2012
	Caltech 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
Recent Distinguished Lectures:	Strumm Lecture, Wesleyan University	2019
	American Physical Society Plenary Lecture	2019
	World Science Festival, New York	2018
	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 Sci.	2015
	Walter Stibbs Lecturer, University of Sydney, Australia	2015
	Giving Pledge, Learning Session at Simons Foundation	2015
Current Service Activities:	NRC Astro2020 Optical/Infrared Committee	2019 - <i>present</i>
	The Kavli Prize Committee	2019 - <i>present</i>
	UC Observatory Advisory Committee	2012 - <i>present</i>

TMT-International Science Definition Team, Black Holes	2013 - <i>present</i>
UCLA Faculty Research Lectureship Selection, chair	2019 - <i>present</i>
UCLA Physical Sciences Diversity Committee	2015 - <i>present</i>
UCLA Depart. Physics & Astronomy Development Committee	2019 - <i>present</i>

Research Group Members (current * & past: 80 total, 43 women, 7 underrepresented minorities): **Research Scientists & Project Scientists:** Tuan Do*, Shoko Sakai*, Greg Martinez*, Gunther Witzel, Leo Meyer **Postdocs:** Anna Ciurlo*, Matt Hosek*, Aurelien Hees, Gunther Witzel, Sylvana Yelda, Will Clarkson, Marshall Perrin, Nate McCrady, Leo Meyer, Joerge-Uwe Pott, Elise Furlan, Andrea Stolte, Samir Salim, Gaspard Duchene, Lisa Prato **PhD Graduate Students:** Abhimat Gautam*, Devin Chu*, Samantha Chappell, Breann Sitariski, Sylvana Yelda, Tuan Do, Quinn Konopacky, Jessica Lu, Seth Hornstein, Caer McCabe, Angelle Tanner, Jennifer Patience, Russel White **MS Graduate Students:** Kelly O'Neil*, Zhuo Chen*, Evan Jones *, Anna Boehle, Kim Phifer, Marc Rafelski, Shelley Wright, Suvi Gezari, Mike Berkovitch, Beth Klein **Post-Bac & -MS, Undergraduate & High School Students:** Rebecca Lewis*, Alex (Shizhe) Chen*, Ethan Cochran*, Max Kroft*, Asad Ukani* & 48 former.

Selected Publications (134 refereed papers since 1991 with >10,000 citations):

1. Ghez, A. M., Salim, S., Weinberg, N. N., et al. 2008, "Measuring Distance and Properties of the Milky Way's Central Supermassive Black Hole with Stellar Orbits," ApJ, 689, 1044
2. Ghez, A. M., Salim, S., Hornstein, S. D., et al. 2005, "Stellar Orbits Around the Galactic Center Black Hole," ApJ, 620, 744
3. Do, T., Hees, A., Ghez, A., et al. 2019 "Relativistic Redshift of the Star S0-2 Orbiting the Galactic Center Supermassive Black Hole," Science, 365, 664
4. Ghez, A. M., Duchêne, G., Matthews, K., et al. 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
5. Ghez, A. M., Klein, B. L., Morris, M., et al. 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
6. 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 μ m Imaging Survey," AJ, 106, 2005
7. 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
8. 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
9. Meyer, L., Ghez, A. M., Schoedel, R., et al. 2012, "The Shortest Known Period Star Orbiting our Galaxy's Supermassive Black Hole," Science, 338, 84
10. Ghez, A. M., Morris, M., Becklin, E. E., et al. 2000, "The Accelerations of Stars Orbiting the Milky Way's Central Black Hole," Nature, 407, 349

Selected Public Outreach Activities:

- **Documentaries:** IMAX, "Einstein's Incredible Universe" (Daniel Ferguson), filming began 2017, release date 2019; NOVA, "Black Hole Apocalypse" (Rush DeNooyer), Jan 2018; & >30 others
- **Museum Exhibits:** materials for >10 shows, including National Academy Science Keck Building Lobby, Adler Planetarium, Denver Museum, Smithsonian Astrophysical Observatory traveling

museum exhibition about black holes

- **Public Talks:** >100 given, including TED Global 2009, which gets significant, online viewership
- **Textbooks:** Content for >30 educational textbooks ranging from high-school to advanced graduate level