

Abhimat Krishna Gautam

<https://abhimat.net>
abhimat@astro.ucla.edu

RESEARCH INTERESTS

Stellar Physics, Star Clusters, Dynamics, Milky Way Galactic center, Time-Domain Astronomy, Computational Astronomy, Observational Astronomy, Machine Learning

EDUCATION

2014 – [In Progress]: University of California, Los Angeles

Graduate (M.S.: 2016, PhD: In Progress)

Division of Astronomy & Astrophysics, Department of Physics & Astronomy

2010 – 2014: University of California, Berkeley

Undergraduate (B.A.: 2014)

Majors: Astrophysics (with Honors), Physics

PUBLICATIONS

First Author

- A. K. Gautam, T. Do, A. M. Ghez, et al., An Adaptive Optics Survey of Stellar Variability at the Galactic Center, *ApJ*, 871:103, 2019

Contributing

- Z. Chen, et al., Consistency of the Infrared Variability of Sgr A* over 22 years, *arXiv:1908.08066* (*ApJL*, in press)
- T. Do, G. Witzel, A. K. Gautam, et al., Unprecedented variability of Sgr A* in NIR, *arXiv:1908.01777* (*ApJL*, in press)
- T. Do, et al., Relativistic redshift of the star S0-2 orbiting the Galactic center supermassive black hole, *Science*, 16 Aug 2019
- S. Jia, et al., The Galactic Center: Improved Relative Astrometry for Velocities, Accelerations, and Orbits near the Supermassive Black Hole, *ApJ*, 873:9, 2019
- S. Sakai, et al., The Galactic Center: An Improved Astrometric Reference Frame for Stellar Orbits around the Supermassive Black Hole, *ApJ*, 873:65, 2019
- D. S. Chu, et al., 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*, 854:12, 2018

CONFERENCE TALKS AND POSTERS

- Talk: Photometric detection of a candidate low-mass giant binary system at the Milky Way Galactic Center: AAS 231, 2018.
- Poster: Constraining the Variability and Binary Fraction of Galactic Center Young Stars, IAUS, 322: 237–238, 2017.
- Talk: SETI Searches for Radio Transients from Kepler Field Planets and Astropulse Candidates: AAS 224, 2014.
- Poster: Multiple epoch analysis of the Guitar Nebula and PSR B2224+65 in Radio, Optical, and X-Ray wavelengths: AAS 221, 2013.

RESEARCH PROJECTS

Current

- Photometric study of stellar population and dynamical environment of the Milky Way Galactic center (2015 – Now)

Previous

- Search for Radio Transients and SETI Signals in Kepler Field and Astropulse Candidates (2011 – 2014)
- Multi-Wavelength and Epoch Analysis of the Guitar Nebula/PSR B2224+65 (2012)
- Calibration of Sgr A* VLBI Observations: (2011 – 2012)

SCIENCE OUTREACH

Current Positions

- UCLA Planetarium Coordinator (2015 – Now)

Current Outreach Involvement

- UCLA Planetarium: Hosting shows for public audiences and K–12 school groups.
- UCLA Astronomy Live!: Leading astronomy demonstrations at area schools.
- Exploring Your Universe: Volunteering at astronomy booths and planetarium during event.

Past Positions

- Exploring Your Universe Design Coordinator and Organizing Committee Member (2015 – 2018)

Past Outreach Experience

- Bay Area Science Festival, San Francisco, CA: 2011 – 2013
- California Academy of Sciences NightLife, San Francisco, CA: 2013
- Cal Day, Berkeley, CA: 2013

- Sunday Streets, Berkeley, CA: 2012
- Focus for Teens, Ithaca, NY: 2012