

Tuan Do

CONTACT INFORMATION

Physics and Astronomy Department
University of California, Irvine
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RESEARCH INTERESTS

Galactic center, nuclear star clusters, stellar dynamics, star formation, stellar evolution, AGN variability, high angular resolution imaging

EDUCATION

University of California, Los Angeles, Los Angeles, CA USA

Ph.D., Astronomy (August 2010)

- Thesis Title: Physical processes in the vicinity of a supermassive black hole
- Advisor: Professor Andrea Ghez

M.S., Astronomy, 2006

- Thesis Topic: Reconstructing the mass loss history of pre-planetary nebulae with Spitzer
- Advisor: Professor Mark Morris

University of California, Berkeley, Berkeley, CA USA

B.A., Physics and Astrophysics, 2004

RESEARCH EXPERIENCE

University of California, Irvine, Irvine, CA, USA

Postdoctoral Fellow with Betsy Barton **September 2010 to present**

Simulating the instrumental performance and the science cases for the integral field spectrograph IRIS on the Thirty Meter Telescope (TMT).

University of California, Los Angeles, Los Angeles, CA, USA

Research Assistant with Andrea Ghez **2006 to 2010**

Using laser guide star adaptive optics observations to study the near-infrared emission from the Galactic black hole Sgr A* and the stellar population and distribution in the central 0.5 pc of the Galaxy.

University of California, Los Angeles, Los Angeles, CA, USA

Research Assistant with Mark Morris **2004 to 2006**

Using Spitzer far infrared observations of dust shells around pre-planetary nebulae to reconstruct the mass loss history of post-main sequence stars.

ACADEMIC EXPERIENCE

University of California, Los Angeles, Los Angeles, CA, USA

Graduate Student Researcher **January 2005 to present**

Teaching Assistant

- Astro 5 - Life in the universe **Fall 2008**
- Astro 6 - Cosmology **Winter 2005**
- Astro 3 - Nature of the universe **Fall 2004**

Center for Adaptive Optics, Santa Cruz, CA, USA

Laboratory Instructor

August 2006, 2007, & 2008

- Part of a team that developed and taught the laboratory portion of the Adaptive Optics Summer School, a week long course designed to familiarize graduate students and post-docs with the theory and applications of adaptive topics.

University of Arizona, Tucson, AZ, USA

Research for Undergraduates Program

June to August 2003

- NSF funded summer research program.

University of California, Berkeley, Berkeley, CA, USA

Undergraduate researcher

June 2001 to May 2003

- Research on magnetic substorms associate with solar wind activity.

REFEREED
PUBLICATIONS

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 in Press

Stolte, A.; Morris, M. R.; Ghez, A. M.; **Do, T.**; Lu, J. R.; Ballard, C.; Mills, E.; Matthews, K., *Disks in the Arches cluster – survival in a starburst environment*, 2010, ApJ, 718, 810

Do, T.; Ghez, A. M.; Morris, M. R.; Lu, J. R.; 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

Meyer, L.; **Do, T.**; Ghez, A.; Morris, M. R.; Yelda, S.; Schoedel, R.; Eckart, A.; “*A power-law break in the near-infrared power spectrum of the Galactic center black hole*”, 2009, ApJL, 694, 1

Do, T.; Ghez, A. M.; Morris, M. R.; Yelda, S.; Meyer, L.; Lu, J. R.; Hornstein, S. D.; Matthews, K.; “*A Near-Infrared Variability Study of the Galactic Black Hole: A Red Noise Source with No Detected Periodicity*”, 2009, ApJ, 691, 1021

Ghez, A. M.; Salim, S.; Weinberg, N. N.; Lu, J. R.; **Do, T.**; Dunn, J. K.; Matthews, K.; Morris, M. R.; Yelda, S.; Becklin, E. E.; Kremenek, T.; Milosavljevic, M.; Naiman, J.; “*Measuring Distance and Properties of the Milky Way’s Central Supermassive Black Hole with Stellar Orbits*”, 2008, ApJ, 689, 1044

Meyer, L.; **Do, T.**; Ghez, A.; Morris, M. R.; Witzel, G.; Eckart, A.; Blanger, G.; Schoedel, R.; “*A 600 Minute Near-Infrared Light Curve of Sagittarius A**”, 2008, ApJL, 688, 17

Do, T.; Morris, M. R.; Sahai, R.; Stapelfeldt, K.; “*A Spitzer Study of the Mass-Loss Histories of Three Bipolar Preplanetary Nebulae*”, 2007, AJ, 134, 1417

Morris, M. R.; Uchida, K.; **Do, T.**; “*A magnetic torsional wave near the Galactic Centre traced by a double helix nebula*”, 2006, Nature, 7082, 308

CONFERENCE
PROCEEDINGS AND
TALKS

Proceeding: **Do, T.**; Ghez, A. M.; Morris, M. R.; Yelda, S.; Lu, J. R.; Hornstein, S. D.; Matthews, K.; “*Testing for periodicities in near-IR light curves of Sgr A**”, 2008, Journal of Physics: Conference Series, Volume 131, Proceedings of “The Universe Under the Microscope - Astrophysics at High Angular Resolution”

Invited Talk: “Is the Galactic center missing a stellar cusp?”, Galactic Center Workshop 2009, Shanghai, China, 10/2009

Talk: “Observations of the Galactic center Nuclear Star Cluster with OSIRIS”, Keck Science Meeting, 9/2009

Talk: “Galactic Center Science with OSIRIS”, Keck Science Meeting Near-IR Workshop, 9/2009

Talk: “Structure of the dynamically relaxed component of the Galactic center nuclear stellar cluster”, American Astronomical Society Meeting #213, Long Beach, CA, 1/2009

Poster: “A Near-Infrared Variability Study of the Galactic Black Hole: A Red Noise Source with No Detected Periodicity”, American Astronomical Society Meeting #213, Long Beach, CA, 1/2009

Invited Talk: “Science at the Galactic Center with the OSIRIS Integral-field Spectrograph”, Center for Adaptive Optics Fall Retreat, Lake Arrowhead, CA, 11/2008

Talk: “Testing for periodicities in the light curves of Sgr A*”, Universe Under the Microscope - Astronomy at High Angular Resolution Conference, Bad Honnef, Germany, 9/2008

Invited Talk: “The supermassive black hole at the Galactic center”, Center for Adaptive Optics Fall Retreat, Lake Arrowhead, CA, 11/2007

Talk: “Sgr A* NIR Variability”, Keck Science Meeting, Caltech, Pasadena, CA, 9/2007

Talk: “Sgr A* near-infrared flares: spectral slope and variability”, Ringberg Galactic Center Meeting, Ringberg, Germany, 6/2007

Poster: “Spectroscopic Observations of the Galactic Center with OSIRIS”, American Astronomical Society Meeting #209, Seattle, WA, 1/2007

Poster: “A Spitzer Study of the Mass Loss Histories of Three Bipolar Pre-Planetary Nebulae”, American Astronomical Society Meeting #207, Washington, D.C., 1/2006

Poster: “A Spitzer Study of the Mass Loss Histories of Three Bipolar Pre-Planetary Nebulae”, Evolved Stars Workshop, Leiden, Netherlands, 11/2005

Proceeding: Hinkle, K. H.; Joyce, R. R.; **Do, T.**; “*Dust enshrouded AGB stars in the LMC*”, 2004, Variable Stars in the Local Group, IAU Colloquium 193, Conference Proceedings