

Zhuo Chen

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RESEARCH INTERESTS

Milky Way Galactic center, supermassive black hole, star clusters, star formation, stellar photometry, stellar spectroscopy, infrared and visual astronomy observing techniques

EDUCATION

University of California, Los Angeles, Los Angeles, CA USA
Ph.D. Astronomy and Astrophysics, 2022 anticipated
Chair: Andrea Ghez
09/03/2020 Advanced to candidacy

University of California, Los Angeles, Los Angeles, CA USA
M.S. Astronomy, 05/08/2018

Nanjing University, Nanjing, Jiangsu China
B.A. Astronomy and Space Science, 2016

RESEARCH EXPERIENCE

University of California, Los Angeles, Los Angeles, CA USA
Graduate Student Researcher **Fall 2016 - Present**
Advisor: Andrea Ghez and Tuan Do
- Exploring the supermassive black hole at the Milky Way Galactic Center and the stars in the environment

- Monitoring the long-term luminosity behavior of the central supermassive black hole with speckle data obtained from W.M. Keck Observatory
- Modeling the star formation history of the nuclear star cluster with metallicity constraints from recently obtained measurements from Keck, Gemini and VLT

National Astronomical Observatories, Chinese Academy of Sciences (NAOC),
Beijing, China
Summer Undergraduate Research Fellow at NAOC **Summer 2014**
Advisor: Di Li
- Analyze dust emission from dense molecular cores to understand star formation

Shanghai Astronomical Observatory, Chinese Academy of Sciences (SHAO),
Shanghai, China
Undergraduate Thesis at SHAO **Spring & Summer 2016**
Advisor: Lei Hao
- Interpret the star formation-extinction relation with nearby galaxies from the MaNGA survey

Nanjing University, Nanjing, Jiangsu China
National Scholar **Fall 2013 - Winter 2016**
Advisor: Xiangdong Li
- Probe the influence of the debris disks to the stellar evolution of pulsars by determining actual stellar age and the braking index

FIRST AUTHOR PUBLICATIONS

- **Chen Z.**, Gallego-Cano E., Do T., Witzel G., Ghez A., Schödel R., Sitarski B. N., Becklin E. E., Lu J. R., Morris M. R., Dehghanfar A., Gautam A. K., Hees A., Hosek M. Jr., Jia S., Mangian A. C., Matthews K. "[Consistency of the Infrared Variability of SGR A* over 22 yr](#)", 2019, ApJ, 882, 28

CONTRIBUTED PUBLICATIONS

- Do T., Witzel G., Gautam A. K., **Chen Z.**, Ghez A., Morris M. R., Becklin E. E., Ciurlo A., Hosek M. Jr., Martinez G., Matthews K., Sakai S., Schödel R. "[Unprecedented Near-infrared Brightness and Variability of Sgr A*](#)", 2019, ApJ, 882, 27
- Do T., Hees A., Ghez A., Martinez G., Chu, D. S., Jia S., Sakai S., Lu J. R., Gautam A. K., Kosmo O’Niel K., Becklin E. E., Morris M. R., Matthews K., Nishiyama S., Campbell R., Chappell S., **Chen Z.**, Ciurlo A., Dehghanfar A., Gallego-Cano E., Kerzendorf W., Lyke J., Naoz S., Saida H., Schödel R., Takahashi M., Takamori Y., Witzel G., Wizinowich P. "[Relativistic redshift of the star S0-2 orbiting the Galactic center supermassive black hole](#)", 2019, Science, 365, 6454
- Do T., Ghez A., Lu J. R., Morris M. R., Hosek M. Jr., Hees A., Naoz S., Ciurlo A., Armitage P., Beaton R. L., Becklin E. E., Bellini A., Bentley R. O., Chakrabarti S., **Chen Z.**, Chu, D. S., Dehghanfar A., Gammie C., Gautam A. K., Genzel R., Greene J., Hora J., Kerzendorf W. E., Libralato M., Nishiyama S., Kosmo O’Niel K., Ozel F., Perets H., Psaltis D., Quataert E., Ramirez-Ruiz E., Rich R. M., Rasio F., Sakai S., Smith H., Weinberg N. N., Witzel G. "[Envisioning the next decade of Galactic Center science: a laboratory for the study of the physics and astrophysics of supermassive black holes](#)", 2019, Astro2020: Decadal Survey on Astronomy and Astrophysics, science white papers, no. 530

CONFERENCE TALKS AND POSTERS

- Poster: **Keck Science Meeting**, virtual, 9/2020, A New Framework for Understanding the Star Formation History at the Galactic Center
- Talk: **Thirty Meter Telescope Science Forum**, Xiamen, China, 11/2019, Sgr A* Long-term Variability and Recent Flares
- Poster: **Galactic Center Workshop**, Yokohama, Japan, 10/2019, Consistency of the Infrared Variability of SGR A* over 22yr
- Talk: **Keck Science Meeting**, Los Angeles, CA, 9/2019, Consistency of the Infrared Variability of SGR A* over 22yr
- Talk: **UCLA Galactic Center Group Workshop**, Los Angeles, CA, 12/2018, Extending the Past Time Baseline for Variability Measurements of the Supermassive Black Hole at the Galactic Center
- Poster: **Keck Science Meeting**, Pasadena, CA, 8/2018, Extending the Past Time Baseline for Variability Measurements of the Supermassive Black Hole at the Galactic Center
- Poster: **American Astronomical Society 231st Meeting**, Washington, DC, 1/2018, Monitoring the Variability of the Supermassive Black Hole at the Galactic Center
- Talk: **UCLA Galactic Center Group Workshop**, Los Angeles, CA, 12/2017
- Talk: **Preparing Thirty Meter Telescope(TMT) Future Science and Technology Leaders Workshop**, Santa Cruz, CA, 8/2017
- Talk: **UCLA Galactic Center Group Workshop**, Los Angeles, CA, 12/2016

**TELESCOPE
TIME AND
FELLOWSHIP**

- 2017A - 2021A: Keck Observatory proposals, UCLA Galactic Center Group, Contributing
- 2016: UCLA Astronomy Scholar Fellowship

**PUBLIC
OUTREACH**

Astronomy Live!, Los Angeles, CA
Coordinator Leader

Summer 2017 - 2019

- Coordinator Leader of the Astronomy Outreach program at UCLA. Organized, coordinated and volunteered outreach events throughout the Los Angeles community.

Explore Your Universe, Los Angeles, CA
Coordinator and Volunteer

Fall 2016 - Present

- Organized one of the UCLA's largest science outreach events every year

Preparing Thirty Meter Telescope(TMT) Future Science and Technology Leaders Workshop, Santa Cruz, CA

Attendee

Fall 2016 - Present

- Led the seminar section of outreach organization management

TEACHING

Teaching Assistant, University of California, Los Angeles

- Astronomy 3, *Nature of Universe*

Fall 2020

- Astronomy 5, *Life in Universe*

Spring 2017

- Astronomy 81, *Stars and Nebulae*

Winter 2017

- Astronomy 5, *Life in Universe*

Fall 2016