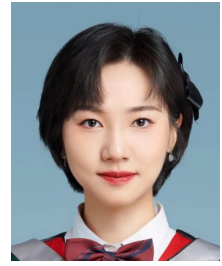


Curriculum Vitae: Zongnan Li

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PERSONAL INFORMATION

Nationality: China

Institute: National Astronomical Observatory of Japan (NAOJ), Japan

Telephone: +86 15850787176

Language: Chinese (native), English (proficient), Japanese (N4)

EDUCATION/EMPLOYMENT

National Astronomical Observatory of Japan (NAOJ) Tokyo, Japan

East Asian Core Observatories Association (EACOA) postdoc, Astrophysics

Science contact: Dr. Daisuke Iono

April 2024 – present

National Astronomical Observatories, CAS (NAOC) Beijing, China

Postdoc, Fellowship of China National Postdoctoral Program for Innovative Talents, Astrophysics

Science contact: Dr. Di Li

Aug 2022 – March 2024

Nanjing University

Nanjing, China

Ph.D., Astrophysics

Sep 2017 – June 2022

Advisor: Prof. Zhiyuan Li

Nanjing University

Nanjing, China

B.S., Astronomy

Sep 2013 – June 2017

RESEARCH INTERESTS

Galactic nuclei, SMBH-galaxy co-evolution, Interstellar medium, Star formation

OBSEVING PROPOSALS

- 2025, Co-I, **CFHT/SITELLE**, 6 hours.
"Illuminating the Outburst: A SITELLE View of M31's Turbulent Past"
- 2025, Co-I, **VLA**, 4.65 hours.
"Unveiling the Radio Counterpart of Galactic-Scale Bubbles in NGC 6286"
- 2024, Co-**PI**, **WHT/WEAVE**, 4 hours.
"Tracing the Circumnuclear Ionized Gas in M81 with WEAVE"
- 2023, **PI**, **P200/CWI**, 1 night.
"Spectroscopic Mapping of A Triple Galaxy System Caught in the Act of Merging"
- 2023, **PI**, **CFHT/SITELLE**, 4 hours.
"Smoking Gun of A kpc-scale Outflow in the Disk of M31?"
- 2023, **PI**, **VLA**, 19.6 hours.
"Probing the cold neutral hydrogen in the M31/M33 halo"
- 2023, **PI**, **VLA**, 11 hours.
"Exploring the Imprint of An Energetic Wind from A Prototype Low-Luminosity AGN"
- 2023, Co-**PI**, **NOEMA**, 8 hours.
"Probing Molecular Gas in and around the Nuclear Star Cluster of M33"
- 2023, **PI**, **JCMT/M24AP024**, 8 hours in band 1 and 21 hours in band 3.
"Extending JCMT CO(3-2) mapping of the nuclear ring of M31"
- 2023, Co-**PI**, **WHT/WEAVE**, 4 hours.
"A Spectroscopic View of Young Star Clusters and H II regions in M31"
- 2022, **PI**, **PCWI/CTAP2023-A0038**, 1 night.

"Spectroscopic Mapping of A Triple Galaxy System Caught in the Act of Merging"

- 2022, Co-I, **IRAM NOEMA/W22CQ, 4 + 8 hours** at Grade B.

"Probing Circumnuclear Gas Inflows/Outflows in Merging Galaxy Pairs"

- 2022, Co-I, **GTC/GTC02-22ADDT, 2 hours.**

"Probing the ionized nuclear outflow in M81"

- 2020, **PI, JCMT/M19BP006, 19 hours** in band 3 and **40 hours** in band 4 at Tier 1.

"JCMT CO(3-2) mapping of the nuclear ring of M31"

- 2020, **PI, IRAM-30m/053-20, 51 hours** at Grade B.

"Mapping molecular gas in the third closest massive spiral galaxy M81 "

- 2019, **PI, IRAM-30m/185-19 & 058-19, 15 + 22 hours** at Grade B.

"IRAM 30m CO(1-0) mapping of the nuclear ring of M31"

- 2018, Co-I, **IRAM-30m/194-18, 17 hours** at Grade B.

"Probing Molecular Gas in Massive Central Disk Galaxies: Toward Understanding Star Formation Quenching"

- 2017, Co-I, **CAHA-3.5m, 2 hours.**

"CAHA/PPAK IFU mapping of M81"

- 2017, Co-I, **JCMT/M17BP005, 276 hours**, Large program.

"HARP and SCUBA-2 High-Resolution Terahertz Andromeda Galaxy Survey"

ACADEMIC VISITS

- **Cardiff University**

Host: Dr. Stephen Eales

Cardiff, UK

Jun 2023 – Jun 2023

Molecular clouds properties across M31

- **Instituto de Astrofísica de Andalucía (CSIC)**

Host: Dr. Ruben Garcia-Benito

Granada, Spain

Jan 2019 – Jan 2019

CAHA/PPAK Integral-field Spectroscopic Observations of M81

- **IRAM 30m telescope**

Jan 2019 – Jan 2019

Sierra Nevada, Spain

Conduct observation for program: Probing Molecular Gas in Massive Central Disk Galaxies

- **James Clerk Maxwell Telescope (JCMT)**

Hilo, Hawaii, USA

Oct 2017 – Oct 2017

Conduct observation for HASHTAG program

- **Harvard and Smithsonian Center for Astrophysics**

Cambridge, MA, USA

Host: Dr. Qizhou Zhang

Feb 2017 – May 2017

Structure and Kinematics of the young planetary nebula NGC 7027

- **University of Wisconsin-Madison**

Madison, WI, USA

Host: Dr. Eric Hooper

Jun 2016 - Aug 2016

Discovering and Age-dating AGN Radio Emission in Large-scale Galaxy Surveys

ORAL PRESENTATIONS

- (Invited talk) *"Ring or no ring - Revisiting the Multiphase Nuclear Environment in M31"*
On-line lunch talk, Yunnan University, China, Mar. 2024
- *"Revisiting the Nuclear Environment of our neighbor M31- A tale of molecular gas"*
East Asian Yong Astronomers Meeting, Chiang Mai, Thailand, Feb. 2024
- *"Circumnuclear gas in M81: a unique testbed for AGN and stellar photoionization"*
Resolving galaxy in all scales, Hong Kong, China, Dec. 2023
- *"Revisiting the Nuclear Ring in our Neighborhood: --a JCMT perspective of M31"*
JCMT Users meeting, London, UK, May 2023

- (Invited talk) “Understanding Galactic Circumnuclear Environments in M31 and M81 with Multi-wavelength, High-definition Observations”
NAOJ colloquium, Tokyo, Japan, Apr. 2023
- (Invited talk) “Cold gas in the nuclear region (~ 500 pc) of M31”
JCMT Users meeting, EAO, on-line talk, Feb. 2022
- “Ionized gas in the nuclear region of M81 -- CAHA IFU mapping of the central 500 pc”
Seminar on diffuse gas in nearby galaxies, Xiamen University, China, May 2021
- (Invited talk) “Cold gas in the nuclear region (~ 500 pc) of the Andromeda galaxy -- CO and [CII] mapping of selected regions in M31”
On-line lunch talk, Yunnan University, China, Mar. 2021
- “JCMT CO(3-2) mapping of M31”
JCMT/SMA User's Meeting, ASIAA, Taipei, Dec 2019
- “JCMT CO(3-2) Mapping of the disk and Circumnuclear Region of M31”
EAO future meeting, Purple Mountain Observatory, China, May 2019
- “JCMT mapping of CO(3-2) in the circumnuclear region of M31”
Academic annual meeting of Chinese Astronomical Society, Yunnan University, China, Oct 2018

AWARDS AND HONORS

- **East Asian Core Observatories Association (EACOA) fellowship** EACOA, 2023
- **KIAA Postdoctoral Fellowship (declined)** KIAA, 2022
- **China National Postdoctoral Program for Innovative Talents**
China Postdoctoral Science Foundation, 2022

COMPUTER SKILL

- Python, LaTeX, Shell, C, Fortran
- Various astronomy software (e.g., CASA, Starlink, GILDAS, starlight, DS9, IRAF, pPXF, CLOUDY, HIPE)

PRESS RELEASE

- JCMT newsletter – “Molecular gas at the center of Andromeda, M31”
<https://www.eaobservatory.org/jcmt/wp-content/uploads/sites/2/2019/09/EAO-NEWS-5.pdf>

PROFESSIONAL ACTIVITIES

- SOC member of “East Asian Yong Astronomers Meeting”, Chiang Mai, Thailand, 2024
- LOC member of “NAOC-CUHK ISM science forum”, Beijing, China, 2022

PUBLICATION LIST

1. Ring or No Ring—Revisiting the Multiphase Nuclear Environment in M31
Li, Z.-N., Su, Z., Wang, S., et al. 2025, ApJ, 938, 128
2. The HASHTAG project II. Giant molecular cloud properties across the M31 disc
Deng, Y., **Li, Z.-N.***, Li, Z., et al. 2025, MNRAS, 538, 2445
3. CAHA/PPAK Integral-field Spectroscopic Observations of M81. II. Testing Photoionization Models in a Spatially Resolved LINER

- Li, Z.-N.**, Li, Z., Garcia-Benito, R., 2023, ApJ, 958, 89
4. CAHA/PPAK Integral-field Spectroscopic Observations of M81 – I. Circumnuclear Ionized Gas
Li, Z.-N., Li, Z., Garcia-Benito, R., et al. 2022, ApJ, 928, 111
 5. A Herschel Mapping of [CII], [OI], and [OIII] Lines from the Circumnuclear Region of M31
Li, Z.-N., Li, Z., Smith, M. W. L., and Gao, Y., 2020, ApJ, 905, 135
 6. The HASHTAG project I. A survey of CO(3-2) emission from the star forming disc of M31
Li, Z.-N., Li, Z., Smith, M. W. L., et al. 2020, MNRAS, 492, 195
 7. JCMT mapping of CO(3-2) in the circumnuclear region of M31
Li, Z.-N., Li, Z., Zhou, P., et al. 2019, MNRAS, 484, 964
 8. Wind-fed Supermassive Black Hole Accretion by the Nuclear Star Cluster: the Case of M31*
Su, Z., Li, Z., **Li, Z.-N.**, 2025, ApJ accepted.
 9. The ALMaQUEST Survey XV: The Dependence of the Molecular-to-Atomic Gas Ratios on Resolved Optical Diagnostics
Yu, N., Zheng, Z., et al. **Li, Z.-N.**, et al. 2024, SCPMA, 67, 299811
 10. NOEMA Detection of Circumnuclear Molecular Gas in X-ray-selected Dual Active Galactic Nuclei: No Evidence for Heavy Obscuration
Hou, M., Li, Z., Liu, X., **Li, Z.-N.**, Li, R., et al. 2023, ApJ, 943, 50
 11. Quenching of Massive Disk Galaxies in the IllustrisTNG Simulation
Xu, Y., Luo, Y., Kang, X., Li, Z., **Li, Z.-N.**, Wang, P., Libeskind, N., 2022, ApJ, 928, 100
 12. The HASHTAG project: The First Submillimeter Images of the Andromeda Galaxy from the Ground
Smith, M. W. L., Eales, S. A., Williams, T. G., Lee, B., **Li, Z.-N.**, et al. 2021, ApJS, 257, 52S
 13. What has quenched the massive spiral galaxies?
Luo, Y., **Li, Z.-N.**, Kang, X., Li, Z., Wang, P. 2020, MNRAS, 496, L116
 14. The Physical Properties of S0 Galaxy PGC 26218 : The Origin of Starburst and Star Formation
Ge X., Gu Q.-S., Garcia-Benito R., Xiao M.-Y., **Li Z.-N.**, 2020, ApJ, 889, 132

*: corresponding author.