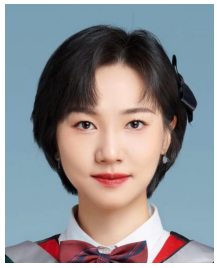

Curriculum Vitae: Zongnan Li

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PERSONAL INFORMATION

Nationality: China
Institute: National Astronomocal Obsercatory 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

- 2024, Co-**PI, WHT**/WEAVE, 4 hours.

"Tracing the Circumnuclear lonized 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**, 11 hours.

" Exploring the Imprint of An Energetic Wind from A Prototype Low-Luminosity AGN "

- 2023, **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"

- 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"

- 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"

- 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** Cardiff, UK

Host: Dr. Stephen Eales Jun 2023 – Jun 2023

Molecular clouds properties across M31

- **Instituto de Astrofisica de Andalucia (CSIC)** Granada, Spain

Host: Dr. Ruben Garcia-Benito Jan 2019 – Jan 2019

CAHA/PPAK Integral-field Spectroscopic Observations of M81

- **IRAM 30m telescope** Sierra Nevada, Spain
  Jan 2019 – Jan 2019

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. 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

2. 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

3. 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

4. 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

5. 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

6. 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

7. 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

8. 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

9. 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

10. What has quenched the massive spiral galaxies?
    Luo, Y., **Li, Z.-N.,** Kang, X., Li, Z., Wang, P. 2020, MNRAS, 496, L116

11. 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