

Curriculum Vitae

Name : Bovornpratch Vijarnwannaluk

Current Position : Postdoctoral researcher

Affiliation : Academia Sinica Institute of Astronomy and Astrophysics

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ADS Link : Link

Version : October 19, 2025



Education

PhD. 2023 Astronomical Institute, Tohoku University

MSc. 2020 Astronomical Institute, Tohoku University

BSc. 2017 Department of Physics Chulalongkorn University, Thailand (Graduated Second Honors)

Employment

2023-Present	Postdoctoral researcher, Academia Sinica Institute of Astronomy and Astrophysics
2018-2023	Graduate student, Astronomical Institute, Tohoku University
2017-2018	Research Assistance, National Astronomical Research Institute of Thailand (NARIT)

Research Interest

- Active Galactic Nuclei (AGN): The cosmological evolution and physics of AGN obscuration and accretion.
- Cosmological supermassive black hole growth.
- Supermassive black holes & Host galaxy connection: The role of AGN-Host galaxy feedback in galaxy evolution.

Award Grants

AHEAD 2020 Cycle 5 Trans-national access to X-ray data analysis	€1.3k	2023
Tohoku Development Memorial Foundation	\$2.5k	2023
118 th Hayakawa Yukio funding to attend overseas conferences.	\$3.6k	2022
Foundation for Promotion of Astronomy to attend overseas conferences (Declined)	\$3.5k	2022
MEXT Scholarship 2018-present	\$70k	2018-2023

First Author Refereed Papers or Publications

1. **Vijarnwannaluk, B.**, Gao, Z., et al., “*The Stellar Morphology & Size of X-ray-selected Active Galactic Nuclei Host Galaxies Revealed by JWST*”, ApJ, Accepted arXiv:2510.13719
2. **Vijarnwannaluk, B.**, Akiyama, M., et al., “*Observational Properties of AGN Obscuration During the Peak of Accretion Growth*”, MNRAS, 529, 4 2024MNRAS.529.3610V
3. **Vijarnwannaluk, B.**, Akiyama, M., et al., “*The Obscured Fraction of Luminous Quasars at Cosmic Noon*”, ApJ, 941, 97, 2022ApJ...941...97V

Second Author Papers

1. Yang, Ting-Kai, Chian-Chou, Chen, et al. (incl. **Vijarnwannaluk, B.**, 4th), “*Unveiling a Population of Strong Galaxy–Galaxy Lensed, Faint Dusty Star-forming Galaxies*”, 2025ApJ...990L..38Y
Contribution: JWST imaging data reduction, photometry, and photometric redshift discussion
2. Pflugradt, J., Ichikawa, K., et al. (incl. **Vijarnwannaluk, B.**, 5th), “*Finding of a Population of Active Galactic Nuclei Showing a Significant Luminosity Decline in the Past $\sim 10^{3-4}$ yrs*”, 2022ApJ...938...75P
Contribution: Optical spectroscopic follow-up observation of fading AGN candidates using Subaru/FOCAS.
3. Ichikawa, K., Yamashita, T., et al. 2021 (incl. **Vijarnwannaluk, B.**, 10th), “*A Wide and Deep Exploration of Radio Galaxies with Subaru HSC (WERGS). IV. Rapidly Growing (Super)Massive Black Holes in Extremely Radio-loud Galaxies*”, 2021ApJ...921...51I
Contribution: In charge of preparation work for optical spectroscopic follow-up and also data analysis of Subaru/FOCAS data.

4. Lam, Marco C., **Vijarnwannaluk, B.**, et al. 2018, “*Laying the groundwork for the development of the data archive of the new robotic telescope*”, 2018SPIE10707E..21L
Contribution: Construction of the demonstrative data archive using metadata from robotic telescopes operated by the National Astronomical Research Institute of Thailand

Publications as part of collaboration

1. Xiaoyang, C. and Ichikawa, K., et al. 2025 (incl. **Vijarnwannaluk, B.**, 13th), “*A $z \sim 0.4$ Little Red Dot analog: An Extended Starburst with an Overmassive Black hole*”, 2025arXiv251002801C
2. Drigga, E. and Koulouridis, E., et al. 2025 (incl. **Vijarnwannaluk, B.**, 12th), “*XXL-HSC: Host properties of X-ray detected AGNs in XXL clusters*”, 2025A&A...697A.234D
3. Poulisis, E., Ruiz, A., et al. 2024 (incl. **Vijarnwannaluk, B.**, 18th), “*AGN X-ray luminosity function and absorption function in the Early Universe ($3 \leq z \leq 6$)*”, 2024A&A...685A..97P
4. Aihara, H., AlSayyad, Y., et al. 2022 (incl. **Vijarnwannaluk, B.**, 73rd), “*Third Data Release of the Hyper Suprime-Cam Subaru Strategic Program*”, 2022PASJ...74..247A
5. Mandal, A. K., Schramm, M., et al. 2021 (incl. **Vijarnwannaluk, B.**, 5th), “*Changing Look AGN Mrk 590: Broad-line Region and Black Hole Mass from Photometric Reverberation Mapping*”, 2021MNRAS.508.5296M

Conference Oral Presentation

1. Peering through an Opaque ISM: Ferrara 2025 “**The Host Morphologies of X-ray-selected Active Galactic Nuclei Observed with JWST**”, Ferrara, Italy, September 1st-5th.
 2. Galaxy Evolution Workshop 2025 “**The X-ray Absorption by the Interstellar Medium in Active Galaxies**”, Nagoya University, Nagoya, Aichi, August 25th-29th, 2025.
 3. Galaxy Evolution Workshop 2025 “**The X-ray Absorption by the Interstellar Medium in Active Galaxies**”, Nagoya University, Nagoya, Aichi, August 25th-29th, 2025.
 4. ASROC Annual Meeting 2025 “**The Host Morphologies of X-ray-selected Active Galactic Nuclei Observed with JWST**”, National Formosa University, Huwei county, Taiwan, May 16-18 2025
 5. Annual Meeting of the Physical Society of Taiwan (TPS2025) “**The Size and Mass of X-ray-selected Active Galactic Nuclei Observed with JWST.**”, National Sun Yat-sen University, Kaohsiung, Taiwan, January 14-16.
 6. Galaxy Evolution Workshop 2024 “**The Host Morphologies of X-ray-selected Active Galactic Nuclei Observed with JWST.**”, Academia Sinica Institute of Astronomy, Taipei, Taiwan, August 6-9, 2024.
 7. ELT Science in Light of JWST “**The Host Morphologies of X-ray-selected Active Galactic Nuclei Observed with JWST**”, Sendai, Japan, June 2nd-June 7th.
 8. ASROC Annual Meeting 2024 “**The Host Morphologies of X-ray-selected Active Galactic Nuclei Observed with JWST**”, Changhua, Taiwan, April 31st-June 2nd.
 9. East Asia Young Astronomer Workshop 2024, “**Active Galactic Nuclei Obscuration at the Peak of the Super Massive Black Hole Growth**”, Chiang Mai, Thailand, January 30th-February 2 2024
 10. 9th Galaxy Evolution Workshop 2023, “**The Population of Luminous Obscured Quasars at Cosmic Noon Unveiled with Deep and Wide Multiwavelength Survey**”, Kyoto University, Japan, February 20th-23rd 2023
 11. HSC-AGN face-2-face Meeting 2022, “**The Population of Obscured AGN at Cosmic Noon Revealed from Deep & Wide Multiwavelength Datasets**”, Kagoshima University, Japan, November 30th-December 2nd 2022
 12. Galaxy Evolution Workshop 2021, “**The Obscured Fraction of X-ray Luminous Quasars at Redshift 2-5**”, Online, February 2022
 13. East-Asia AGN Workshop 2021, “**A Search for high-z obscured AGNs in Deep & Wide Multi-wavelength imaging datasets**”, Online, October 2021
 14. Autumn Annual Meeting of Astronomical Society of Japan, “**Searching for high-z obscured AGNs in Deep & Wide Multi-wavelength imaging datasets**”, Online, September 2021
 15. Siam Physics Congress 2016, “**Photometric Reverberation Mapping of Quasar HE0345+0056**”, Ubon-rachatani, Thailand, June 2016
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Conference Poster Presentation

1. ASROC 2025, “**The X-ray Absorption by the Interstellar Medium in Active Galaxies**”, National Formosa University, Huwei county, Taiwan, May 16-18 2025
 2. The First SUPER-IRNET Workshop, “**The Population of Luminous Obscured Quasars at Cosmic Noon Unveiled with Deep and Wide Multiwavelength Survey**”, National Astronomical Observatory of Japan, Mitaka, Tokyo, March 23-24 2023
 3. What drives the growth of black holes?: a decade of reflection, “**The Obscured Fraction of Luminous X-ray AGN at the Peak of the Cosmic Accretion Growth**”, Iceland(Online), September 2022
 4. COSPAR 2022 44th Scientific Assembly, “**The Obscured Fraction of Luminous X-ray AGN at the Peak of the Cosmic Accretion Growth**”, Athens, Greece, July 2022
 5. Galaxy Evolution Workshop 2020, “**Searching for obscured AGNs in deep and wide multi-wavelength imaging datasets**”, Online, February 2021
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Invited Talk

1. NTHU Colloquium, “**Active Galactic Nuclei Obscuration at the Peak of the Super Massive Black Hole Growth**”, Institute of Astronomy, National Tsing Hua University, March 7th, 2025
 2. NCU Colloquium, “**Active Galactic Nuclei Obscuration at the Peak of the Super Massive Black Hole Growth**”, Institute for Astronomy, National Central University, April 12th, 2024
 3. AHEAD 2020 Visit, “**Obscuration of Luminous AGN unveiled with Deep & Wide Multiwavelength Datasets**”, Institute for Astronomy, Astrophysics, Space Applications, and Remote Sensing, National Observatory of Athens, June 1st, 2023
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Accepted Telescope Proposal & Observation Experience

1. Subaru/FOCAS S23A for 2 nights as Co-I
2. Subaru/FOCAS S21A for 2 nights as Co-I

Observation experience: Subaru/FOCAS (Optical spectroscopy, 3 nights), Subaru/Hyper Suprime-Cam (optical photometric, 7.5 nights), Okayama Astronomical Observatory (NIR-Spectroscopy, 5 nights)

Internship & Summer Schools

1. The NARIT-STFC summer school in radio astronomy and technology, National Astronomical Research Institute of Thailand (NARIT), Chiang Mai, Thailand, May 2017
 2. The 2nd NARIT International Astronomical Training Workshop (NIATW), National Astronomical Research Institute of Thailand (NARIT), Chiang Mai, Thailand, March 2017
 3. Computational Astrophysics and Cosmology Workshop, National Astronomical Research Institute of Thailand (NARIT), November 2016
 4. Radio Astronomy Workshop, National Astronomical Research Institute of Thailand (NARIT), Chiang Mai, Thailand, June 2016
 5. Japan-Asia Youth Exchange Program in Science, Tokyo Metropolitan University, Tokyo, Japan, January 2016
 6. Visiting student, Kavli Institute of Physics and Mathematics of the Universe (IPMU), Chiba, Japan, May 2014
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Work Experience

- Research Assistant at the National Astronomical Research Institute of Thailand (NARIT) during 2017-2018
Job Description: In charge of prototyping a scientific data archive which contains the metadata of scientific images, proposals, and user information of for instruments under NARIT. This project is in collaboration with members of the Department of the Astrophysics Research Institute of Liverpool John Moore University (LJMU). In addition, I was in charge of administrative duties of the Thai Southern Hemisphere Telescope in Chile.
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Public Outreach & Leaderships

I have regularly participated in outreach activities related to astronomy when given the opportunity. This includes being a volunteer staff at the Astronomy Olympic Camp (2013-2018), Presenting my research and life in Japan to exchange students from Thailand (Aug 2018), I also set up a slack group to share study material and assist new international students of the department who cannot enter Japan during the pandemic (2020). I currently have one public outreach interview about my experience in astronomical research during undergraduate studies ([link](#), in Thai)

Technical Skills

- **Programming skills & Proficiency:** Python (Proficient), c (Basic), bash (capable)
- **Language:** English & Thai (both fluent)
- **Software:** Matlab, IRAF (Spectroscopic reduction), DS9, XSPEC