Curriculum Vitae

Name :Bovornpratch Vijarnwannaluk
Current Position : PhD. Student
Affiation : Astronomical Institute, Tohoku University
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Education

PhD. 2023 Astronomical Institute, Tohoku University (**Expected October 2023**)
MSc. 2020 Astronomical Institute, Tohoku University
BSc. 2017 Department of Physics Chulalongkorn University, Thailand (Graduated Second Honors)

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 oversea conferences.	$3.6k	2022
Foundation for Promotion of Astronomy to attend oversea conferences (Declined)	$3.5k	2022
MEXT Scholarship 2018-present	$70k	2018-2023

First Author Refereed Papers or Publications

1. **Vijarnwannaluk, B.**, Akiyama, M., et al., "*The Obscured Fraction of Luminous Quasars at Cosmic Noon*", ApJ, 941, 97, 2022ApJ...941...97V

Other Refereed Papers or Publications

1. 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.

2. 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
   Contribution: Conducted photometric observations using Subaru/HSC for the Hyper Suprime-Cam Subaru Strategic Program (HSC-SSP).

3. 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
   Contribution: Original project member & part of the observation team.

4. 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.

5. 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

Conference Oral Presentation

1. 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
2. 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
3. Galaxy Evolution Workshop 2021, "**The Obscured Fraction of X-ray Luminous Quasars at Redshift 2-5**", Online, February 2022
4. East-Asia AGN Workshop 2021, "**A Search for high-z obscured AGNs in Deep & Wide Multi-wavelength imaging datasets**", Online, October 2021
5. Autumn Annual Meeting of Astronomical Society of Japan, "**Searching for high-z obscured AGNs in Deep & Wide Multi-wavelength imaging datasets**", Online, September 2021
6. Siam Physics Congress 2016, "**Photometric Reverberation Mapping of Quasar HE0345+0056**", Ubonrachatani, Thailand, June 2016

Conference Poster Presentation

1. 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
2. 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
3. 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
4. Galaxy Evolution Workshop 2020, "**Searching for obscured AGNs in deep and wide multi-wavelength imaging datasets**", Online, February 2021

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

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 archives which contains the metadata of scientific images, proposal, 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 a administrative duties of the Thai Southern Hemisphere Telescope in Chile.

Public Outreach & Leaderships

I have regularly participated in outreach activity related to astronomy when given the opportunity. This includes being a volunteer staff at the Astronomy Olympic Camp (2013-2018), Presentation of 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