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)
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

1.) Recipient of the 118th Hayakawa Yukio funding to attend oversea conferences.	\$3.6k	2022
2.) Recipient for funding from the Foundation for Promotion of Astronomy to attend oversea conferences (Declined)	\$3.5k	2022
3.) 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 in press, arXiv:2209.07797

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*", ApJ in press, arXiv:2208.12286
   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*", PASJ, 74, 247
   Contribution: Conducted photometric observations using Subaru/HSC for the Hyper Suprime-Cam Subaru Strategic Program (HSC-SSP).

3. Mandal, A. K., Schramm, M., Rakshit, S., et al. 2021 (incl. **Vijarnwannaluk, B.**, 5th), "*Changing Look AGN Mrk 590: Broad-line Region and Black Hole Mass from Photometric Reverberation Mapping*", MNRAS, 508, 5296
   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*", ApJ, 921, 51
   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* ", Proceedings of the SPIE, 10707, 1070721
   Contribution: Construction of the demonstrative data archive using metadata from robotic telescopes operated by the National Astronomical Research Institute of Thailand

Oral Presentation

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

Poster Presentation

1. 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
2. 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
3. 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. Mar 2021: 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