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Research & Education Background

Academia Sinica Institute of Astronomy and Astrophysics (ASIAA)   2020 Feb – current
National Taiwan University, Taiwan

Project support staff - Software Engineer
- Develop automatically tests to astronomical visualization software CARTA

Academia Sinica Institute of Astronomy and Astrophysics (ASIAA)   2018 July – 2020 Feb
National Taiwan University, Taiwan/Hawaii, USA

Postdoctoral Fellow
- Commission tests and operations with Yuan-Tseh Lee Array on Mauna Loa
- Study nuclear CO molecular gas kinematics of nearby AGN with 3D-Barolo

Kavli Institute for Astronomy and Astrophysics (KIAA)   2017 Nov – 2018 June
Peking University (PKU), China

BHOLE fellow
- Study stellar kinematics asymmetry of nearby galaxies and AGNs

Ludwig-Maximilian University of Munich (LMU), Germany   2013 – 2017 Oct
Max-Planck-Institut für extraterrestrische Physik (MPE), Infrared Group

Ph.D., Department of Physics
- Thesis: Gas flows and Stars in Nuclear Regions of Nearby Seyfert Galaxies

National Taiwan Normal University (NTNU), Taiwan

M.S., Department of Earth Sciences, Astronomy Group   2010 – 2013
- Thesis: The Properties of AGN in Ultra/luminous Infrared Galaxies

B.S., Department of Earth Sciences   2006 – 2010

Research Interests

Active galactic nuclei and nuclear star formation, multi-wavelength observations and instrumental/software/pipeline development & testing

Preparing Observation, Executing Telescope and Calibration Experiences

- Near-infrared:
  - Very Large Telescope (VLT) – SINFONI instrument: Co-PI of large program; my works include preparing the observation blocks (OBs), reducing the data and improving the calibration pipeline. Assisted other successful proposals to prepare observations and calibrate the data.
- Optical:
  - Large Binocular Telescope (LBT): Completed six days observations that included assisting the observing program execution, assessing weather condition, communicating with LBTO staff.
- Millimeter/ Submillimeter:
  - Institut de Radioastronomie Millimétrique (IRAM) – NOEMA interferometer with PolyFix instrument: PI 8-hours observation completed
  - Submillimeter Array (SMA): Completed one night observation and doing data reduction for summer student project "Search For Methanol at z=0.89"
  - Yuan-Tseh Lee Array (YTLA) – 7 small dishes interferometer: Assisting daytime and nighttime observing and helping the engineers to test the hardware instruments. (On site during Aug-Dec 2018).

Computer skills

- Programming: Python 3, Shell Scripts (Bash), MATLAB, IDL, JavaScript related languages, html, CSS, jQuery Package, Bootstrap Package, automatically UI test packages (Selenium & Cypress), C & C++
- Have experiences with Fortran 90 & MySQL
- Self-directed learning in R, Julia, REACT Frameworks
- Database management member of Taiwan Extragalactic Astronomical Data Center (2011-2013)
- Open source – Wiki service setup
- Working with Lunix/Unix(Ubuntu for laptop & CentOS for server)

Professional Appointments

Princeton University, USA   Sep 2012
Visiting Master Student
- Measuring the black hole mass of INTEGRAL-selected AGNs

Academia Sinica Institute of Astronomy and Astrophysics, Taiwan   2008
Summer Undergraduate Student

- Investigating the expanding molecular gas around the post-AGB star with Submillimeter Array (SMA).

Scholarships, Awards, & Grants

- PhD fellowship, International Max-Planck Research School (IMPRS)   2013 - 2017
- IAU Travel Grant from National Science Council (25k NTD), Taiwan   2012
- IAU Travel Grant from Department of Earth Sciences, NTNU (15k NTD)   2012
- The Best Poster Prize at the Annual Physical Society of Republic of China
  (中華民國物理學會 天文重力/宇宙學 年會壁報論文優勝)   2012
- The student scholarship of graduated student at NTNU
  (國立台灣師範大學地球科學系碩士班優秀學生獎學金)   2012
- Member of The Phi Tau Phi Scholastic Honor Society of Republic of China
  (中華民國斐陶斐榮譽學會 國立師範大學理學院)   2012
- The student scholarship of undergraduate student at NTNU
  (國立台灣師範大學地球科學系學士班優秀學生獎學金)   2008
- The Presidential award at NTNU (國立台灣師範大學地球科學系書卷獎)   2007

Selected Talks

Seminar & Colloquium
- Colloquium, Institute of Astronomy at National Central University, Taoyuan, Taiwan   Nov 2020
- Colloquium, Institute of Astronomy at National Tsing Hua University, Hsinchu, Taiwan   Dec 2018
- Submillimeter Array seminar, Hawaii, USA   Dec 2018
- ESO AGN club, Garching, Germany   Feb 2016
- ASIAA Special seminar, Taipei, Taiwan   Oct 2015

Conferences
- [Invited-only] Local hard X-ray Selected AGN across the multi-wavelength spectrum
  ESO Santiago, Chile   Mar 2018
- East-Asia AGN Workshop, Kagoshima, Japan   Dec 2017
- AGN Large Program Meeting, Porto Alegre, Brazil   May 2015
- The Astronomical Society of Republic of China (ASROC) 2013, Penghu, Taiwan   May 2013
- ASROC 2012, Taitung, Taiwan   2012
- Theoretical Institute for Advanced Research in Astrophysics   2012
  Winter School: High Redshift Galaxies, Taipei, Taiwan

Lectures
- ASIAA internal student lectures – giving 4 hours "Active Galactic Nuclei" series lectures to
  undergrad/grad students, National Taiwan University, Taipei, Taiwan   April-May 2019

Publications

First author papers (Refereed)

(4) **Nuclear environment in the NGC 3079. <u>Lin, Ming-Yi</u>** et al. in prep

3. **LLAMA: Nuclear stellar properties of Swift BAT AGN and matched inactive galaxies. <u>Lin, Ming-Yi</u>**, Davies, R. I. et al. 2018, MNRAS, 473, 4582
2. **Thick discs, and an outflow, of dense gas in the nuclei of nearby Seyfert galaxies. <u>Lin, Ming-Yi</u>**, Davies, R. I. et al. 2016, MNRAS, 458, 1375
1. **Role of active galactic nuclei in the luminous infrared galaxy phase at z ≤ 3. <u>Lin, Ming-Yi</u>**, Hashimoto, Y., Foucaud, S. 2016, MNRAS, 456, 2735

Other relevant papers

1. Fueling active galactic nuclei. II. Spatially resolved molecular inflows and outflows. Davies, R. I. et al. 2014, ApJ, 792, 2, 101
2. Obscuration in AGNs: near-infrared luminosity relations and dust colors. Burtscher L. et al. 2015, A&A, 578, A47
3. Insights on the dusty torus and neutral torus from optical and X-ray obscuration in a complete volume limited hard X-ray AGN sample. Davies, R. I. et al. 2015, ApJ, 806, 127
4. On the relation of optical obscuration and X-ray absorption in Seyfert galaxies. Burtscher L. et al. 2016, A&A, 586, A28
5. Constraints on the broad-line region properties and extinction in local Seyferts. Schnorr-Müller A. et al. 2016, MNRAS, 462, 4, 3570
6. The role of host galaxy for the environmental dependence of active nuclei in local galaxies. Davies, R. I. et al. 2017, MNRAS, 466, 4, 4917
7. LLAMA: normal star formation efficiencies of molecular gas in the centres of luminous Seyfert galaxies. Rosario DJ et al. 2018, MNRAS, 473, 4, 5658
8. BAT AGN Spectroscopic Survey. VIII. Type 1 AGN with Massive Absorbing Columns. Shimizu, Taro T et al. 2018, ApJ, 856, 2, 154
9. The multiphase gas structure and kinematics in the circumnuclear region of NGC 5728. Shimizu, Taro T et al. 2019, MNRAS, 490, 4, 5860
10. SCUBA-2 Ultra Deep Imaging EAO Survey (Studies). III. Multiwavelength Properties, Luminosity Functions, and Preliminary Source Catalog of 450 μm Selected Galaxies. Lim, C-F, 2020, ApJ, 889, 2, 80
11. LLAMA: The MBH–σ_* relation of the most luminous local AGNs. Caglar Turgay, 2020, A&A, 634, A114
12. Ionized outflows in local luminous AGN: what are the real densities and outflow rates? Davies, R. I. et al. 2020, MNRAS, 498, 3, 4150
13. CARTA: Cube Analysis and Rendering Tool for Astronomy. Comrie, Angus et al. 2021, ASCB, ascl: 2103.031

14. LLAMA: Stellar populations in the nuclei of ultra hard X-ray selected AGN and matched inactive galaxies. Burtscher L. et al. 2021, preprint