WUJI WANG

—Curriculum Vitae—

◇ ZAH Astronomisches Recheninstitut, Mönchhofstr. 12-14, 69120 Heidelberg, Germany
◇ email: wuji.wang@uni-heidelberg.de ◇ personal website: wujiwang-astro.github.io

RESEARCH INTERESTS

I am interested in galaxy evolution and AGN feedback at and near cosmic noon (z∼3). I study the impact from both jet- and quasar-mode AGN processes on the interstellar medium to cirumgalactic medium scales using observations from various instruments.

SKILLS

Expert in the analysis of data from multi-wavelength IFU instruments on both ground-based and space telescopes: MUSE/VLT, ALMA and JWST NIRSpec IFU.

CAREER & EDUCATION & RESEARCH

• **Postdoctoral Researcher, Caltech/IPAC, Pasadena, USA** Sep. 2024 – 2027
Hosts: Andreas Faisst, Kyle Finner

• **PhD, Astronomy, Heidelberg University/IMPRS, DE** Oct. 2020 –Jul. 2024
Thesis: *3D view of the circumgalactic to interstellar medium around distant radio galaxies*
Supervisors: Dominika Wylezalek, Joël Vernet, Carlos De Breuck

• **MSc, Astrophysics, Munich University (LMU)/ESO, DE** Apr. 2018 – Jul. 2020
Thesis: *MUSE View of the CGM around a* $z \sim 4.5$ *Radio Galaxy*
Supervisors: Dominika Wylezalek, Joël Vernet, Carlos De Breuck, Benjamin Moster
Grade: 1.26 – German system

• **BSc, Astronomy, Nanjing University, CN** Sep. 2013 – Jul. 2017
Thesis: *Investigating the high-z tidal disruption event candidate in the Chandra Deep Field*
Supervisor: Bin Luo
Grade: 4.38/5

• **Summer Intern, ESO, DE** Jun. 2016 – Aug. 2016
Project: *Research on White Dwarfs Polluted by Planetary Debris*
Supervisor: Siyi Xu

AWARDED TELESCOPE TIME

• **JWST NIRSpec/IFU, PID: GO-1970**, Cycle1:
PI, Zooming into the Monster's Mouth: Tracing Feedback from Their Hosts to Circumgalactic Medium in $z = 3.5$ Radio-loud AGN (24.5h)

• **ALMA Band8, PID: 2021.1.00576.S**, Cycle8:
PI, Pushing the frontier with ALMA: star formation at sub-kpc scale in distant radio-loud AGN hosts (13.9h)

• **UVES/VLT, PID: 108.21WL.001**, P108:
PI, Spectrally Resolving the Complex CGM of High-redshift Radio-loud AGN using UVES (20h)

• **NOEMA** 2023:
Co-I, Molecular gas in slightly windy, quenching AGN, PID: S23BT (30h)

PUBLICATIONS

ORCiD: 0000-0002-7964-6749

• Link to ADS library of Wuji Wang's publications: https://ui.adsabs.harvard.edu/public-libraries/BRKFteavQGK2qrtljtTo_w

Publication list (refereed papers):

First-author

- **Wang, W.**, Wylezalek, D., De Breuck C., Vernet J., Rupke D., Zakamska N., Vayner A., Lehnert L., Nesvadba N., and Stern D. (2024) *JWST* discovers an AGN ionization cone but only weak radiatively driven feedback in a powerful $z\approx3.5$ radio-loud AGN, A&A, 683, A169.
- **Wang, W.**, Wylezalek, D., Vernet J., De Breuck C., Gullberg, B., Swinbank, M., Villar Martín, M., Lehnert, M., Drouart, G., Arrigoni Battaia F., Humphrey, A., Noirot, G., Kolwa S., Seymour N., and Lagos, P. (2023) 3D tomography of the giant intrinsic Lyα nebulae of $z\approx3$–5 radio-loud AGN, A&A, 680, A70
- **Wang, W.**, Wylezalek, D., De Breuck C., Vernet J., Humphrey, A., Villar Martín, M., Lehnert, M., and Kolwa S. (2021) Mapping the "invisible" circumgalactic medium around a $z\sim4.5$ radio galaxy with MUSE, A&A, 654, A88

Co-author

- Kolwa, S., ..., **Wang, W.**, ... (2023) Faint [CI](1-0) emission in $z\sim3.5$ radio galaxies, MNRAS, 525, 5831
- Zhang, S., ..., **Wang, W.**, ... (2023) Revealing the Gas Recycling in the Circumgalactic Medium (CGM) Utilizing a Luminous Lyα nebula around a Type-II Quasar at $z=2.6$ with the Keck Cosmic Web Imager (KCWI), ApJ, 952, 124Z
- Bertemes, C., ..., and **Wang, W.** (2023) MASCOT: Molecular gas depletion times and metallicity gradients – evidence for feedback in quenching active galaxies, MNRAS, 518, 5500
- Wylezalek, D., ..., **Wang, W.**, ... (2022) MASCOT – An ESO-ARO legacy survey of molecular gas in nearby SDSS-MaNGA galaxies: I. first data release, and global and resolved relations between H_2 and stellar content, MNRAS, 510, 3119

- Falkendal, T., ..., and **Wang, W.** (2021) ALMA and MUSE observations reveal a quiescent multi-phase circumgalactic medium around the $z \sim 3.6$ radio galaxy 4C 19.71, A&A, 645, A120

TEACHING & MENTORING

• **Co-advisor** of Julian Groth, Heidelberg University — Mar. 2024 –
MSc Thesis

• **Co-advisor** of Jelena Ritter, Heidelberg University — Jun. 2023 – Jul. 2024
MSc Thesis/Ritter et al. in prep.

• **Co-advisor** of Yu-Ruei Wang, Heidelberg University — Oct. 2022 – Jun. 2023
BSc Project & Thesis

• **Co-advisor** of Chuanming Mao, Heidelberg University — Mar. 2021 – Jul. 2021
BSc Thesis

• Lab Experiment **tutor**, Heidelberg University — Oct. 2021 – Jun. 2022
CCD photometry in modern astronomy (FP30)

• Lecture **tutor**, Heidelberg University — Mar. 2021 – Jul. 2021
Galactic and Extragalactic Astronomy (MVastro3)

TALKS & MEDIA

Media

- Apr. 20th 2021, ZAH Press release
- Aug. 1st 2021, UNI SPIEGEL

Invited talks & Workshops

- Jun. 30th 2021, Group meeting talk at Tsinghua High-z Team, online
- Oct. 2023, The importance of jet-induced feedback on galaxy scales, workshop, NL

Conferences & seminars

- Jun.17th/2021, ARI Institute Colloquium, Seminar talk, DE
- Jun.28th–July.2nd/2021, EAS 2021, ePoster, online
- Nov.3rd/2021, 1st KooGiG-Junior, Contributed talk, online
- Jan.26th/2022, Quasars and Galaxies through Cosmic Time, Contributed talk, online
- Jan.27th/2022, MPIA Galaxy Coffee, Seminar talk, DE
- Sep.12–16th/2022, What matter(s) around galaxies 2022, Contributed talk, IT
- Sep.26–30th/2022, What drives the growth of black holes, Poster, IS
- Dec.1st/2022, ARI Institute Colloquium, Seminar talk, DE
- Feb.23rd 2023, MPIA Galaxy Coffee, Seminar talk, DE

- Jul.10–14th/2023, EAS 2023, Contributed talk, PL
- Sep.11–15th/2023, AGN on the beach, Contributed talk, IT
- Nov.28th/2023, STScI & JHU Galaxy Journal Club, Seminar talk, MD USA
- Dec.1st/2023, Steward Observatory UA EURECA, Seminar talk, AZ USA
- Dec.4th/2023, Caltech Tea talk, Seminar talk, CA USA

SERVICE & EXPERIENCE

- Referee, Monthly Notices of the Royal Astronomical Society (MNRAS)
- Scientific assistant, ESO Observing Programmes Committee (OPC) 104, 105

LANGUAGES

Native speaker of Mandarin Chinese; Fluent in English (TOEFL 106/120); Basic German

ADDITIONAL INFORMATION

Proficient in Python, Linux/Mac OS programming and data reduction using ESO Recipe Execution Tool, JWST pipeline and CASA; Experienced in reduction of data from Chandra, echelle spectrograph on Magellan telescope and Arizona Radio Observatory (ARO)

REFERENCES AVAILABLE TO CONTACT

Dr. Dominika Wylezalek — PhD supervisor
Emmy-Noether Group Leader, ARI Heidelberg University, Germany
Email: dominika.wylezalek@uni-heidelberg.de

Dr. Joël Vernet — PhD co-supervisor/collaborator
ELT Instrumentation project scientist, ESO, Germany
Email: jvernet@eso.org

Dr. Carlos De Breuck — PhD co-supervisor/collaborator
Full astronomer and ALMA development scientist, ESO, Germany
Email: cdebreuc@eso.org

Dr. Matthew Lehnert — collaborator
Director, Centre de Recherche Astrophysique de Lyon - CRAL, France
Email: matthew.lehnert@univ-lyon1.fr