Jianhang CHEN

cjhastro@gmail.com
https://cjhang.github.com
github.com/cjhang
Max Planck Institute for Extraterrestrial Physics
Giessenbachstrasse 1
85748 Garching, Munich, Germany

Education

PhD of Astronomy | ESO & Ludwig Maximilian University of Munich — Sep. 2020 – Aug. 2023
Distant, dusty star-forming galaxies | Supervisor: Prof. Rob Ivison — Garching, Germany

Master of Astrophysics | Nanjing University — Sep. 2017 – Jun. 2020
Studying galactic feedbacks with multi-phase gas | Supervisor: Prof. Yong Shi & Prof. Zhi-yu Zhang — Nanjing, China

Bachelor of Physics | Lanzhou University — Sep. 2013 – May. 2017
Lanzhou, China

Employment

Postdotoral Fellow | Max Planck Institute for Extraterrestrial Physics — Sep. 2023 – now
Galphy & NOEMA3D — Garching, Germany

Telescope Proposals and Observing Experience

PI Proposals:

- **NOEMA** Winter 2023, W23CR: *Into the heart of darkness*, 32 hr, **(PI: Jianhang Chen, B priority)**.
- **ALMA** Cycle-10, 2023.1.00318.S: *How important are magnetic fields in early disk galaxies?*, 30.4 hrs, **(PI: Jianhang Chen, B priority)**.
- **VLT/MUSE** P111, 111.253V: *Probing unobscured star formation in a new sample of ALMA-selected proto-cluster cores at* $z > 3$, 16 hrs, **(PI. Jianhang Chen, B priority)**.
- **IRAM30m** Summer 2022 Delta, 095-22: *The tip of the iceberg?*, 34.4 hrs, **(PI. Jianhang Chen, A priority)**.
- **ALMA** Cycle-9, 2022.1.00495.S: *Isotopic constraints on the IMF in the most extreme star-forming environments in the Universe*, 23.7 hrs, **(PI: Jianhang Chen, A priority)**.
- **JCMT** 22A, M22AP002: *Revealing the structure around a putative new SMG proto-cluster core*, 8.5 hrs, **(PI: Jianhang Chen, B priority)**.
- **ALMA** Cycle-8, 2021.1.00458.S: *Dust polarisation in distant, star-foming galaxies: a transformative survey of the viable targets*, 25.1 hrs, **(PI: Jianhang Chen, B priority)**.
- **NEOMA** Summer 2020, S20BB: *Searching for molecular gas in HI-rich red spirals*, 2.8 hrs, **(PI: Jianhang Chen, B priority)**.

Selected Co-I Proposals:

- **ALMA** Cycle-8, 2021.1.00018.S: *Exploiting a snapshot survey of the 3,083 reddest Herschel sources to reveal distant protoclusters*, 30.6 hrs, (PI. R. Ivison, CoI: Jianhang Chen).
- **VLA** 2020B, 20B-180: *Off-nuclear star formation in a gas-rich low-mass S0 galaxy*, 27 hrs, (PI: Zhengyi Chen, CoI: Jianhang Chen)
- **NOEMA** Summer 2020, S20CK: *Exploiting a snapshot survey of the 3,083 reddest Herschel sources to reveal distant protoclusters*, 26 hrs, (PI: Vinodiran Arumgam, CoI: Jianhang Chen)
- **IRAM30m** Summer 2020, 062-20: *Do Changing-look AGNs reside in the gas-rich environment?*, 23.5 hrs, (PI: Xiaoling Yu, CoI: Jianhang Chen)

Observing Experience:

- IRAM30m, NIKA2, 6 nights, 18-25 Oct. 2022
- IRAM30m, NIKA2, 7 nights, 13-21 Oct. 2024

Research Experience

11th NOEMA Interferometry School — 21-25 Nov. 2021
Winter School — Grenoble, France

Short term visit, Durham University/Physics department — 14-24 Sep. 2022
Host: Prof. Mark Swinbank Topic: dynamical modeling — Durham, UK

Astrophysics, Formation and Evolution of Galaxy cluster Across Cosmic Time — 23 Nov.-1 Dec. 2021
Winter School — Tenerife, Spain

10th IRAM 30-meter School on Millimeter Astronomy — 15-23 Nov. 2021
Winter School — Online

Astrostatistics and R training — 09-13 Jul. 2018
The 2nd East Asian Astrostatistics International Conference (EAAIC2018) — Nanjing, China

Conference and Seminar Talks

Dusty, star-forming galaxies — 11 Jan. 2023
ASIAA Colloquium — Remote

Opportunities with dusty, star-forming galaxies — 9 Jan. 2023
MPE Seminar talk — Garching, Germany

ALMACAL IX: multi-band ALMA survey for dusty star-forming galaxies — 15–23 Dec. 2022
A half-century of millimeter and submillimeter astronomy — Miyakojima, Japan

ALMACAL: Number counts and the resolved fractions of the CIB — 3–4 Mar. 2022
Meeting of ALMA Young Astronomers — Online

Submillimetre number counts — 5–6 Nov. 2021
12th IMPRS Symposium — Garching, Germany

The spatial extension of AGN narrow line regions — 1–4 Apr. 2019
MaNGA Collaboration Meeting — Oxford, UK

Posters

ALMACAL: A 'free' submillimetre galaxy survey — 3–5 May. 2022
PoSTER 2022 - Galaxy Evolution (Best poster award) — Online

ALMACAL: Hunting for regions over-dense in SMGs — 23 Nov.–1 Dec. 2021
XXXII Canary Islands Winter School of Astrophysics — Tenerife, Spain

Community Involvement

Scientific Assistant at ESO OPC P109 & P110 — Nov. 2021 & May. 2022
Helping to organise pannel discussion for time allocation of ESO telescopes

Organisor of student session of Munich Joint Astronomy Colloquium — Nov. 2021
Helping to coodinate the discussion between students and the speaker

Member of LOC for the 11th IMPRS Symposium — May 2021
Helping to organise meeting schedule

Scientific referee for Publications of the Astronomical Society of Japan — 2020

Awards and Scholarship

International Max-Planck Research Scholarship (IMPRS) on Astrophysics 2020-2023
Grant for PhD study

Excellence Scholarship Spring 2019
Nanjing University

Outstanding Graduates Award Spring 2017
Lanzhou University

National Encouragement Scholarship 2015,2016
Merit based scholarship for colleage students in China

The First Prize Scholarships Spring 2014
Lanzhou University

Skills

Languages: Chinese (Native), English (C1)
Programming: Python (NumPy, SciPy, Matplotlib, Pandas), MATLAB, Mathematica
Document Creation: HTML, LaTex, Markdown
Software: pPXF, CASA, CARTA, DS9, BBarolo, Galpak

References

- Prof. Dr. Rob Ivison
  European Southern Observatory (ESO)
  Rob.Ivison@eso.org
- Dr. Martin Zwaan
  ALAM Regional Center / ESO
  mzwaan@eso.org
- Dr. Céline Péroux
  European Southern Observatory
  Aix Marseille Université, CNRS, LAM
  celine.peroux@gmail.com

Jianhang CHEN

Max Planck Institute for Extraterrestrial Physics
Giessenbachstrasse 1
85748, Garching bei München, Germany

jhchen@mpe.mpg.de

ADS Library

List of Publications

First author papers:

- "ALMACAL. XI. Over-densities as signposts for proto-clusters? A cautionary tale" **Chen**, Ivison, Zwaan et al. A&A 675L, 10 (2023).
- "ALMACAL IX: multi-band ALMA survey for dusty star-forming galaxies and the resolved fractions of the cosmic infrared background" **Chen**, Ivison, Zwaan et al. MNRAS, 518, 1378 (2023)
- "The spatial extension of extended narrow line regions in MaNGA AGN" **Chen**, Shi, Dempsey et al. MNRAS, 489, 855 (2019)

Co-author papers:

- "Polarized thermal emission from dust in a galaxy at redshift 2.6" Geach et al. (4th co-author) Nature, 621, 483 (2023)
- "An escaping outflow in a galaxy with an intermediate-mass black hole" Zheng et al. (6th co-author) MNRAS, 523, 3274 (2023)
- "VLA Legacy Survey of Molecular Gas in Massive Star-forming Galaxies at High Redshift" Frias Castillo et al., ApJ, 945, 128 (2023)
- "The H I gas disc thickness of the ultra-diffuse galaxy AGC 242019" Li et al. (4th co-author) MNRAS, 516, 4220 (2022)
- "ALMACAL: Surveying the Universe with ALMA Calibrator Observations" Zwaan et al. (4th co-author) The Messenger, 186, 10 (2022)
- "The major mechanism to drive turbulence in star-forming galaxies" Yu et al. (6th co-author) MNRAS, 505, 5075 (2021)
- "Probing possible effects of circumgalactic media on the metal content of galaxies through the mass-metallicity relationship" Zhai et al. (3th co-author) MNRAS, 504, 1959 (2021)
- "A Cuspy Dark Matter Halo" Shi, Zhang, Wang et al. (4th co-author) ApJ, 909, 20 (2021)
- "The impact of merging on the origin of kinematically misaligned and counter-rotating galaxies in MaNGA" Li et al. (8th co-author) MNRAS, 501, 14 (2021)
- "Host galaxy properties of changing-look AGNs revealed in the MaNGA survey" Yu et al. (4th co-author) MNRAS, 498, 3985 (2020)
- "What drives the velocity dispersion of ionized gas in star-forming galaxies?" Yu et al. (9th co-author) MNRAS, 486, 4463 (2019)
- "An early-type galaxy with an inner star-forming disc" Li et al. (6th co-author) MNRAS, 480, 1705 (2018)