

Jianhang CHEN

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European Southern Observatory
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EDUCATION

PhD of Astronomy | European Southern Observatory

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

Telescope Proposals and Observing Experience

PI Proposals:

- 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).

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

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 Tenerife, Spain

Winter School

10th IRAM 30-meter School on Millimeter Astronomy Winter School	15-23 Nov. 2021 Online
Astrostatistics and R training	09-13 Jul. 2018
The 2nd East Asian Astrostatistics International Conference (EAAIC2018)	Nanjing, China
Conference and Seminar Talks	
ALMACAL IX: multi-band ALMA survey for dusty star-forming galaxies A half-century of millimeter and submillimeter astronomy	15–23 Dec. 2022 Miyakojima, Japan
ALMACAL: Number counts and the resolved fractions of the CIB Meeting of ALMA Young Astronomers	3–4 Mar. 2022 Online
Submillimetre number counts 12th IMPRS Symposium	5–6 Nov. 2021 Garching, Germany
The spatial extension of AGN narrow line regions MaNGA Collaboration Meeting	1–4 Apr. 2019 Oxford, UK
Posters	
ALMACAL: A 'free' submillimetre galaxy survey PoSTER 2022 - Galaxy Evolution (Best poster award)	3–5 May. 2022 Online
ALMACAL: Hunting for regions over-dense in SMGs XXXII Canary Islands Winter School of Astrophysics	23 Nov.–1 Dec. 2021 Tenerife, Spain
Community Involvement	
Scientific Assistant at ESO OPC P109 & P110 Helping to organise pannel discussion for time allocation of ESO telescopes	Nov. 2021 & May. 2022
Organisor of student session of Munich Joint Astronomy Colloquium Helping to coodinate the discussion between students and the speaker	Nov. 2021
Member of LOC for the 11th IMPRS Symposium Helping to organise meeting schedule	May 2021
Scientific referee for Publications of the Astronomical Society of Japan	2020
Awards and Scholarship	
International Max-Planck Research Scholarship (IMPRS) on Astrophysics Grant for PhD study	2020-2023
Excellence Scholarship Nanjing University	Spring 2019
Outstanding Graduates Award Lanzhou University	Spring 2017
National Encouragement Scholarship Merit based scholarship for colleage students in China	2015,2016
The First Prize Scholarships Lanzhou University	Spring 2014
Skills	
Languages: Chinese (Native) English (C1)	

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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

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LIST OF PUBLICATIONS

European Southern Observatory Karl-Schwarzschild-Strasse 2 85748, Garching bei München, Germany

ADS Library

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FIRST AUTHOR PAPERS:

- "ALMACAL X: Extreme over-densities are not always signposts to proto-clusters a cautionary tale" **Chen**, Ivison, Zwaan et al. MNRAS. (in submission)
- "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:

- "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)