



# Jianhang CHEN

Nationality: Chinese

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European Southern Observatory

Karl-Schwarzschild-Strasse 2

85748, Garching bei München, Germany

## EDUCATION

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### PhD of Astronomy | European Southern Observatory

*Distant, dusty star-forming galaxies* | Supervisor: Prof. Rob Ivison

Sep. 2020 – Aug. 2023

Garching, Germany

### Master of Astrophysics | Nanjing University

*Studying galactic feedbacks with multi-phase gas* | Supervisor: Prof. Yong Shi & Prof. Zhi-yu Zhang

Sep. 2017 – Jun. 2020

Nanjing, China

### Bachelor of Physics | Lanzhou University

Sep. 2013 – May. 2017

Lanzhou, China

## TELESCOPE PROPOSALS AND OBSERVING EXPERIENCE

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### PI Proposals:

- **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-forming 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

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### 11th NOEMA Interferometry School

Winter School

21-25 Nov. 2021

Grenoble, France

<b>Short term visit, Durham University/Physics department</b> Host: Prof. Mark Swinbank Topic: dynamical modeling	14-24 Sep. 2022 Durham, UK
<b>Astrophysics, Formation and Evolution of Galaxy cluster Across Cosmic Time</b> Winter School	23 Nov.-1 Dec. 2021 Tenerife, Spain
<b>10th IRAM 30-meter School on Millimeter Astronomy</b> Winter School	15-23 Nov. 2021 Online
<b>Astrostatistics and R training</b> The 2nd East Asian Astrostatistics International Conference (EAAIC2018)	09-13 Jul. 2018 Nanjing, China

#### CONFERENCE AND SEMINAR TALKS

<b>Dusty, star-forming galaxies</b> ASIAA Colloquium	11 Jan. 2023 Remote
<b>Opportunities with dusty, star-forming galaxies</b> MPE Seminar talk	9 Jan. 2023 Garching, Germany
<b>ALMACAL IX: multi-band ALMA survey for dusty star-forming galaxies</b> A half-century of millimeter and submillimeter astronomy	15–23 Dec. 2022 Miyakojima, Japan
<b>ALMACAL: Number counts and the resolved fractions of the CIB</b> Meeting of ALMA Young Astronomers	3–4 Mar. 2022 Online
<b>Submillimetre number counts</b> 12th IMPRS Symposium	5–6 Nov. 2021 Garching, Germany
<b>The spatial extension of AGN narrow line regions</b> MaNGA Collaboration Meeting	1–4 Apr. 2019 Oxford, UK

#### POSTERS

<b>ALMACAL: A ‘free’ submillimetre galaxy survey</b> PoSTER 2022 - Galaxy Evolution (Best poster award)	3–5 May. 2022 Online
<b>ALMACAL: Hunting for regions over-dense in SMGs</b> XXXII Canary Islands Winter School of Astrophysics	23 Nov.–1 Dec. 2021 Tenerife, Spain

#### COMMUNITY INVOLVEMENT

<b>Scientific Assistant at ESO OPC P109 &amp; P110</b> Helping to organise pannel discussion for time allocation of ESO telescopes	Nov. 2021 & May. 2022
<b>Organisor of student session of Munich Joint Astronomy Colloquium</b> Helping to coodinate the discussion between students and the speaker	Nov. 2021
<b>Member of LOC for the 11th IMPRS Symposium</b> Helping to organise meeting schedule	May 2021
<b>Scientific referee for Publications of the Astronomical Society of Japan</b>	2020

#### AWARDS AND SCHOLARSHIP

<b>International Max-Planck Research Scholarship (IMPRS) on Astrophysics</b> Grant for PhD study	2020-2023
<b>Excellence Scholarship</b> Nanjing University	Spring 2019
<b>Outstanding Graduates Award</b> Lanzhou University	Spring 2017
<b>National Encouragement Scholarship</b> Merit based scholarship for colleage students in China	2015,2016

## SKILLS

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**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

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

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## LIST OF PUBLICATIONS

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[ADS Library](#)

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### 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)

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### CO-AUTHOR PAPERS:

- “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, 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)