Chentao YANG (杨辰涛)

ORCID: 0000-0002-8117-9991

Department of Space, Earth and Environment
Chalmers University of Technology
Maskingränd 2, 412 58 Göteborg
Sweden

https://cyang.pro
chentao.yang@chalmers.se
+46 31-772 6021
+46 72-872 8542

Personal Information

Current status:	Postdoctoral Researcher
Gender:	Male
Year of birth:	1988
Citizenship:	P.R. China
Languages:	Chinese (native), English (full professional proficiency), French (elementary proficiency)

Employment

Postdoc, Chalmers University of Technology, Göteborg, Sweden — 2021.11 – present
European Southern Observatory (ESO) Fellow, Santiago, Chile — 2017.11 – 2021.10
(*50% independent research + 50% ALMA duty*)

Education

- Institut d'Astrophysique Spatiale, Université Paris-Saclay, France — 2014 – 2017
  (Co-tutelle) PhD degree in Astrophysics, *Diploma awarded in January 2018*
  Supervisor: Alain Omont, Alexandre Beelen
- Purple Mountain Observatory, Chinese Academy of Sciences, P.R. China — 2013 – 2017
  (Co-tutelle) PhD degree in Astrophysics, *Diploma awarded in January 2018*
  Supervisor: Yu Gao
- Astronomy Department, Beijing Normal University, P.R. China — 2010 – 2013
  Master's degree in Astrophysics, *Diploma awarded in July 2013*
  Supervisor: Yu Gao, Biwei Jiang
- Astronomy Department, Beijing Normal University, P.R. China — 2006 – 2010
  Bachelor's degree in Astronomy, *Diploma awarded in July 2010*

Computer Skills

Languages:	`Shell (Unix/Linux), Python (NumPy, Pandas, Matplotlib, etc.), Julia, IDL, FORTRAN, MATLAB`
Operating systems:	`GNU/Linux (CentOS, openSUSE, Ubuntu, etc.), macOS, Windows`
Astronomy Softwares:	`GILDAS, Starlink, CARTA, CASA, HIPE, TOPCAT, DS9`

Research Interests

- Obscured galaxy nuclei near and far — Current
- Submillimeter water maser in high-redshift galaxies — Current
- Observations of the interstellar medium in submillimeter galaxies — Current
- Millimeter and submillimeter spectral line surveys at high redshift — Current
  - *SUNRISE* – SubmillimeterolecUlar liNe suRveys in dIstant duSty galaxiEs
- Submillimeter H_2O lines as the ISM tracers in dusty galaxies near and far — Current

Ph.D. Thesis
- Physical conditions of the interstellar medium in high-redshift submillimetre bright galaxies (ADS record) — 2013–2017

Master Thesis
- Water vapor in galaxies near and far — 2011–2013

Bachelor Thesis
- Cold dust in nearby galaxies — 2009–2010

References (alphabetical order)

- **Aalto, Susanne**: Professor, Chalmers University of Technology, Sweden
- **Beelen, Alexandre**: Associate Astronomer, Laboratoire d'Astrophysique de Marseille, France
- **Cox, Pierre**: Senior Scientist, Institut d'Astrophysique de Paris, France
- **Gao, Yu***: Professor, Xiamen University, China
- **González-Alfonso, Eduardo**: Professor, University of Alcalá, Spain
- **Impellizzeri, Violette**: Program manager, Allegro ARC, Leiden Observatory, the Netherlands
- **Omont, Alain**: Emeritus Senior Scientist, Institut d'Astrophysique de Paris, France

*Professor Yu Gao sadly passed away in 2022 at the age of 59.

31 accepted PI Proposals 531 h in total (A/B: A/B-rated)

- The Atacama Large Mm/submm Array (ALMA), **7 proposals, 63.9 h**^{12m} + **50 h**^{7m}. since 2017
  - 2017.A.00053.S (ACA observatory filler program, **50 h**);
  - 2018.1.00861.S^{B}(EU, **10.4 h**), 2018.1.00797.S^{B}(EU, **6.6 h**), 2018.1.01710.S(EU, **9.1 h**);
  - 2019.1.00205.S^{B}(EU, **23.2 h**), 2019.1.00533.S^{B}(EU, **4.8 h**), 2019.1.00310.S(EU, **8.0 h**);
  - 2022.1.00172.S(EU, **31.8 h**);
- The NOrthern Extended Millimeter Array (NOEMA), **12 proposals, 138 h**. since 2013
  - W0B3^{B}, S14CT^{B}, S15CT^{B}, W15EQ^{B}, S16CG^{B}, S16CF^{B}, S16BT^{B}, W16DQ^{B}, W16DO^{B}, S18DC^{A}, S18CT^{A}, W18EB^{A}, W22DT^{B};
- The IRAM-30m telescope (IRAM-30m), **3 proposals, 76 h**. since 2015
  - 079-15^{A}, 196-15^{B}, 076-16^{A};
- The Karl G. Jansky Very Large Array (JVLA/NRAO), **3 proposals, 47 h**. since 2014
  - 14B-259^{B}, 15B-177, 18B-190;
- The Atacama Pathfinder EXperiment (APEX/ESO) telescope, **2 proposal, 55 h**. since 2016
  - 097.B-0914^{B} (SEPIA-5), 103.B-0471^{A} (SEPIA-9);
- The Green Bank Telescope (GBT/GBO) telescope, **2 proposal, 63 h**. since 2020
  - 21A-093^{A} (W-band); 22B-020^{A} (W-band)

***>110 accepted proposals as a co-I**, including:*

ALMA (40 proposals, 7 A + 13 B + 20 C), NOEMA (51, including 1 large program, z-GAL), JVLA (5: 15B-320, 17A-151, 18A-340, 18B-190, 22A-211), GTC(1), Spitzer (1), VLT (2, KMOS), IRAM-30m (6), APEX (2), JCMT (7, including 4 large programs, JINGLE, MALATANG, AWESOME and RAGERS) and GMRT (1 proposal).

Observing Experience (over 1000 h)

- The IRAM 30m telescope (IRAM30/IRAM), 2013–2016: > 100 h;
- The James Clerk Maxwell Telescope (JCMT/EAO), 2016: > 100 h;
- The ALMA Observatory (ALMA/JAO), 2018–present: (AoD) > 1000 h.

Professional Service

- Referee for scientific journals: *ApJ, A&A, PASJ;*
- *HST* Expert external proposal reviewer;
- Individual reviewer for the Science and Technology Facilities Council (STFC, UK);
- Member of the ESO (Chile) Fellowship Selection Committee (2019–2020);
- Member of the ALMA (JAO) Post-Doctoral Fellow Selection Committee (2019);
- Technical Secretary of the ALMA Proposal Review meeting, 2018 (Cycle 6) – 2021 (Cycle 8);
- Co-organiser of the ALMA proposal workshop at ESO (2018, 2021);
- Organisers of the CONquest 2023 workshop (2023)

Teaching & Mentorship

- **Malte Brinch** (PhD student), Cosmic Dawn Center (DAWN) DTU-space (Denmark), The excitation of [C I] lines in high-redshift dusty galaxies; 2021/2022
- **Daysi Quinatoa** (PhD student), Universidad de Valparaiso (Chile), APEX observation of the submillimeter H_2O emission in nearby galaxies; 2021/2022
- **Nina Grant** (Undergraduate student), Princeton International Internship program, Complete the rotation curve of NGC 7528 with neutral carbon emission; June–August 2019
- Lecture, Advance topics of astrophysics and astrobiology, Universidad Andrés Bello, Chile; The ISM in high-redshift dusty star-forming galaxies. 2nd Semester 2019

Refereed Publications in Journals (†: 1st/2nd author)

NASA/ADS Lib.

***NASA/ADS** citation metrics: **760 citations** in total, **including 222 citations of the 1st-author papers**; The most-cited 1st-author paper has **84 citations**; h-index = 16, h-index/(years since PhD defence) = 3.2*

40. The SCUBA-2 Large eXtragalactic Survey: 850 μm map, catalogue and the bright-end number counts of the XMM-LSS field
T. K. Garratt, J. E. Geach, Y. Tamura, K. E. K. Coppin, M. Franco, Y. Ao, C. -C. Chen, C. Cheng, D. L. Clements, Y. S. Dai, ..., C. Yang, 2023, MNRAS accepted (arXiv: 2301.10801)

39. A survey of CO(1–0) emission in high-*z Herschel* selected galaxies
F. Stanley, B. M. Jones, D. Riechers, C. Yang, S. Berta, P. Cox, T.J.L.C. Bakx et al., 2023, ApJ accepted

38. The Bright Extragalactic ALMA Redshift Survey (BEARS) II: Millimetre photometry of gravitational lens candidates
G. J. Bendo, S. A. Urquhart, S. Serjeant, T. Bakx, ..., C. Yang, A. Young 2023, MNRAS accepted (arXiv: 2301.02584)

37. **The Opaque Heart of the Galaxy IC 860: Analogous Protostellar, Kinematics, Morphology, and Chemistry**
M. D. Gorski, S. Aalto, S. König, C. Wethers, C. Yang, S. Muller, S. Viti, J. H. Black, K. Onishi, M. Sato 2023, A&A accepted (arXiv: 2210.04499)

36. **The importance of radiative excitation on the H_2O submillimeter emission lines in galaxies**
E. González-Alfonso, Jacqueline Fischer, Javier R. Goicoechea, Chentao Yang, Miguel Pereira-Santaella and Kenneth P. Stewart 2022, A&A, 666, L3

35. **Gas properties in the Early Universe deciphered from spectral line surveys of high-z objects: The Cloverleaf Quasar**
Michel Guélin, Carsten Kramer, Chentao Yang, Belen Tercero, and Jose Cernicharo 2022, EPJ Web of Conferences 265, 00024

34. **Dense Gas and Star Formation in Nearby Infrared Bright Galaxies: APEX survey of HCN and HCO^+ $J = 2 \rightarrow 1$**
Jing Zhou, Zhi-Yu Zhang, Yu Gao, Junzhi Wang, Yong Shi, Qiusheng Gu, Fei Li, Chentao Yang, Tao Wang and Qing-hua Tan 2022, ApJ, 936, 58;

33. **Massive molecular gas reservoir in a luminous sub-millimeter galaxy during cosmic noon**
Bin Liu, N. Chartab, H. Nayyeri, A. Cooray, C. Yang, D. A. Riechers, M. Gurwell, Zong-hong Zhu,... and P. van der Werf 2022, ApJ, 929, 41;

32. **Bright Extragalactic ALMA Redshift Survey (BEARS) I: redshifts of bright gravitationally-lensed galaxies from the Herschel ATLAS**
S. A. Urquhart, G. J. Bendo, S. Serjeant, T. Bakx, M. Hagimoto, P. Cox, R. Neri, M. Lehnert, ..., C. Yang, A.J. Young 2022, MNRAS, 551, 3017;

31. **The ramp-up of interstellar medium enrichment at $z > 4$**; (ESO Press Release, ALMA Press Release, Phys.org News, Daily Mail news, CNN news)
M. Franco, K. E. K. Coppin, J. E. Geach, C. Kobayashi, S. C. Chapman, C. Yang, E. González-Alfonso, J. S. Spilker, A. Cooray, M. J. Michałowski 2021, Nature Astronomy;

30. **An ACA 1mm survey of HzRGs in the ELAIS-S1: survey description and first results**;
Hugo G. Messias, Evanthia Hatziminaoglou, Pascale Hibon, Israel Matute, Tony Mroczkowski, José M. Afonso, Edward Fomalont, ..., Chentao Yang 2021, MNRAS, 508, 5259;

29. **Close-up view of a luminous star-forming galaxy at $z = 2.95$**;
S. Berta, A. J. Young, P. Cox, R. Neri, B. M. Jones, A. J. Baker, A. Omont, ..., C. Yang, D. A. Riechers, H. Dannerbauer, I. Perez-Fournon, P. van der Werf et al. 2021, A&A, 646, A122;

28. **A proto-pseudobulge in ESO 320-G030 fed by a massive molecular inflow driven by a nuclear bar**; (Harvard CfA Press Release, Phys.org News)
E. González-Alfonso, M. Pereira-Santaella, J. Fischer, S. García-Burillo, C. Yang, A. Alonso-Herrero, L. Colina, M. L. N. Ashby, H. A. Smith et al. 2021, A&A, 645, A49;

27. **Planck's Dusty GEMS. VIII. Dense gas reservoirs in the most active dusty starbursts at $z \sim 3$**;
R. Cañameras , N. P. H. Nesvadba, R. Kneissl, S. König, C. Yang, A. Beelen, R. Hill, E. Le Floc'h and D. Scott 2021, A&A, 645, A45;

26. **ALMA [N II] 205 μm imaging spectroscopy of the lensed submillimeter galaxy ID 141 at redshift 4.24**;
Cheng Cheng, Xiaoyue Cao, Nanyao Lu, Chentao Yang, Dimitra Rigopoulou, Vassilis Charmandaris et al. 2020, ApJ, 898, 33;

†25. **Etching glass in the early Universe: Luminous HF and H_2O emission in a QSO-SMG pair at $z = 4.7$**;
M. D. Lehnert, C. Yang, B.H.C. Emonts, A. Omont, E. Falgarone, P. Cox, and P. Guillard 2020, A&A, 641, A124;

24. **The MALATANG Survey: Dense Gas and Star Formation from High Transition HCN and HCO^+ maps of NGC 253**;
Xuejian Jiang, Thomas R. Greve, Yu Gao, Zhi-Yu Zhang, ..., Chentao Yang, Qian Jiao, Aeree Chung et al. 2020, MNRAS, 494, 1276;

†23. **The first detection of the 448 GHz ortho-H_2O line at high redshift: probing the struc-**

ture of a starburst nucleus at $z \sim 3.63$
C. Yang, E. González-Alfonso, A. Omont, M. Pereira-Santaella, J. Fisher, A. Beelen, R. Gavazzi 2020, A&A, 634, L3;

22. **A declining starburst at $z = 4.72$ lensed by a merging pair of massive galaxies at $z = 1.48$**;
L. Ciesla, M. Béthermin, E. Daddi, J. Richard, T. Diaz-Santos, M. Sargent, D. Elbaz, M. Boquien, T. Wang, C. Schreiber, C. Yang, J. Zabl et al. 2020, A&A, 635, A27;
21. **NOEMA Redshift Measurements of Bright *Herschel* Galaxies**;
R. Neri, P. Cox, A. Omont, A. Beelen, S. Berta, ..., C. Yang and A.J. Young 2020, A&A, 635, A7;
20. **A SCUBA-2 Selected Herschel-SPIRE Dropout and the Nature of this Population**;
J. Greenslade, E. Aguilar, D. L. Clements, H. Dannerbauer, T. Cheng, G. Petitpas, C. Yang, H. Messias et al. 2019, MNRAS, 490, 5317;
19. **JINGLE V: Dust properties of nearby galaxies derived from hierarchical Bayesian SED fitting**;
Isabella Lamperti, Amélie Saintonge, Ilse De Looze, Gioacchino Accurso, Christopher J. R. Clark, Matthew W. L. Smith, Christine D. Wilson, ..., Chentao Yang 2019, MNRAS, 489, 4389;
18. **JINGLE, a JCMT legacy survey of dust and gas for galaxy evolution studies: II. SCUBA-2 850 μm data reduction and dust flux density catalogues**;
Matthew W. L. Smith, Christopher J. R. Clark, Ilse De Looze, Isabella Lamperti, Amélie Saintonge, Christine D. Wilson, ..., Chentao Yang and Ming Zhu 2019, MNRAS, 486, 4166;
17. **The molecular-gas properties in the gravitationally lensed merger HATLAS J142935.3-002836**;
Hugo Messias, Neil Nagar, Zhi-Yu Zhang, Iván Oteo, Simon Dye, Nicholas Timmons, Eduardo Ibar, ..., and Chentao Yang 2019, MNRAS, 486, 2366;
† 16. **CO, H_2O, H_2O^+ line and dust emission in a $z = 3.63$ strongly lensed starburst merger at sub-kiloparsec scales**;
C. Yang, R. Gavazzi, A. Beelen, P. Cox, A. Omont, M. Lehnert, Y. Gao, R. J. Ivison, A. M. Swinbank, L. Barcos-Mũnoz, R. Neri, A Cooray, S. Dye, S. Eales et al. 2019, A&A, 624, A138;
15. **Planck's Dusty GEMS. VII. Atomic carbon and molecular gas in dusty starburst galaxies at $z = 2$ to 4**;
N. P. H. Nesvadba, R. Cañameras, R. Kneissl, S. Koenig, C. Yang, E. Le Floc'h, A. Omont and D. Scott 2019, A&A, 624, A23;
14. **VALES V: A kinematic analysis of the molecular gas content in *H*-ATLAS galaxies at $z \sim 0.03$–0.35 using ALMA**;
J. Molina, E. Ibar, V. Villanueva, A. Escala, C. Cheng, M. Baes, H. Messias, C. Yang, F.E. Bauer, P. P. Van der Werf, R. Leiton, M. Aravena, ..., S. Eales & L. Dunne 2019, MNRAS, 482, 1499;
† 13. **Planck's Dusty GEMS. VI. Multi-*J* CO excitation and interstellar medium conditions in dusty starburst galaxies at $z = 2$–4**; (IRAM Press Release, CEA Press Release)
R. Cañameras, C. Yang, N. P. H. Nesvadba, A. Beelen, R. Kneissl, S. Koenig, E. Le Floc'h, M. Limousin, S. Malhotra, A. Omont, D. Scott 2018, A&A, 620, A61;
12. **JINGLE, a JCMT legacy survey of dust and gas for galaxy evolution studies: I. Survey overview and first results**;
Amélie Saintonge, Christine D. Wilson, Ting Xiao, Lihwai Lin, Ho Seong Hwang, Tomoka Tosaki, ..., Chentao Yang, Ming Zhu et al. 2018, MNRAS, 481, 3497;
11. **Far-infrared *Herschel* SPIRE spectroscopy of lensed starbursts reveals physical conditions of ionised gas**;
Zhi-Yu Zhang, R. J. Ivison, R. D. George, Yinghe Zhao, L. Dunne, ..., Chentao Yang, Stephen Eales, Ros Hopwood, Steve Maddox, Alain Omont et al. 2018, MNRAS, 481, 59;
10. **Extreme conditions in the molecular gas of lensed star-forming galaxies at $z \sim 3$**;
Paola Andreani, Edwin Retana-Montenegro, Zhi-Yu Zhang, Padelis Papadopoulos, Chentao Yang, Simona Vegetti 2018, A&A, 615, A142;
9. **The MALATANG Survey: the L_{gas}–L_{IR} correlation on sub-kiloparsec scale in six nearby star-forming galaxies as traced by HCN $J = 4 - 3$ and HCO^+ $J = 4 - 3$**;
Qing-Hua Tan, Yu Gao, Zhi-Yu Zhang, Thomas Greve, Xue-Jian Jiang, Christine Wilson, Chen-Tao Yang, Ashley Bemis, Aeree Chung et al. 2018, ApJ, 860, 165;
8. **VALES: IV. Exploring the transition of star formation efficiencies between normal**

and starburst galaxies using APEX/SEPIA and ALMA at low redshift;
C. Cheng, E. Ibar, T. M. Hughes, V. Villanueva, R. Leiton, G. Orellana, A. Munoz-Arancibia, N. Lu, C. K. Xu, C. N. A. Willmer, J. Huang, T. Cao, C. Yang et al. 2018, MNRAS, 475, 248;

7. **The *Herschel* Bright Sources (HerBS): Sample definition and SCUBA-2 observations**;
Tom J. L. C. Bakx, S. A. Eales, M. Negrello, M. W. L. Smith, E. Valiante, W. S. Holland, M. Baes, N. Bourne, D. L. Clements, ..., P. van der Werf, C. Yang, 2018, MNRAS, 273, 1751;

6. **High dense gas fraction in intensely star forming dusty galaxies**;
I. Oteo, Z-Y. Zhang, C. Yang, R. J. Ivison, A. Omont, M. Bremer, S. Bussmann, A. Cooray, P. Cox, H. Dannerbauer, L. Dunne, S. Eales, ..., and P. Van der Werf 2017, ApJ, 850, 170;

†5. **Molecular gas in the *Herschel*-selected strongly lensed submillimeter galaxies at $z\sim2$–4 as probed by multi-J CO lines**; (Code on Github: `radex_emcee`)
C. Yang, A. Omont, A. Beelen, Y. Gao, P. van der Werf, R. Gavazzi, Z.-Y. Zhang, R. Ivison, M. Lehnert, D. Liu, I. Oteo, E. González-Alfonso et al. 2017, A&A, 608, A144;

†4. **Submillimeter H_2O and H_2O^+ emission in lensed ultra- and hyper-luminous infrared galaxies at $z\sim2$–4**;
C. Yang, A. Omont, A. Beelen, E. González-Alfonso, R. Neri, Y. Gao, P. van der Werf, A. Weiß, R. Gavazzi, N. Falstad, A. J. Baker, R. S. Bussmann, A. Cooray et al. 2016, A&A, 595, A80;

3. **High-J CO Versus far-infrared relations in normal and starburst galaxies**;
Daizhong Liu, Yu Gao, Kate Isaak, Emanuele Daddi, Chentao Yang, Nanyao Lu and Paul van der Werf 2015, ApJ, 810, L14;

†2. **Water vapor in nearby infrared galaxies as probed by *Herschel***;
Chentao Yang, Yu Gao, A. Omont, Daizhong Liu, K. G. Isaak, D. Downes, P. P. van der Werf and Nanyao Lu 2013, ApJ, 771, L24;

†1. **H_2O emission in high-z ultra-luminous infrared galaxies**; (A&A Highlight)
A. Omont, C. Yang, P. Cox, R. Neri, A. Beelen, R. S. Bussmann, R. Gavazzi, P. van der Werf, D. Riechers, D. Downes and *40 other authors* 2013, A&A, 551, A115;

Submitted Publications & Reviews In prep.

- **Dust and Cold Gas Properties of Starburst HyLIRG-Quasars at $z\sim2.5$**
Feng-Yuan Liu, Y. Sophia Dai, Alain Omont, ..., Chentao Yang, Xue-Bing Wu, and Jia-Sheng Huang, submitted to ApJ;
- **Discovery of a radio lobe in the Cloverleaf Quasar at $z=2.56$**
Lei Zhang, Zhi-Yu Zhang, James. W. Nightingale, Ze-Cheng Zou, Xiaoyue Cao, Chao-Wei Tsai, Chentao Yang, Yong Shi, Junzhi Wang et al., submitted to MNRAS (arXiv: 2212.07027);
- **A candidate dusty protocluster core surrounding a binary galaxy system**
Tom J. L. C. Bakx, S. Berta, H. Dannerbauer, P. Cox, M. Hagimoto, D. H. Hughes, D. A. Riechers, P. P. van der Werf, C. Yang, ..., A. Weiß, and A. J. Young, submitted to MNRAS;
- **Serendipitous Discovery of an Optically-Dark Hyper-Luminous Infrared Galaxy at $z=3.4$**
Natsuki H. Hayatsu, Zhi-Yu Zhang, R.J. Ivison, Chao-wei Tsai, ..., Chentao Yang, ... and Junfeng Wang, submitted to MNRAS;
- **Property characterisations of Herschel-selected strong gravitational lensing systems candidates - I. The HST confirmed lenses**
E. Borsato, L. Marchetti, M. Negrello, ..., C. Yang et al., submitted to MNRAS;
- **right Extragalactic ALMA Redshift Survey (BEARS) III: Detailed study of emission lines from 71 *Herschel* targets**
M. Hagimoto, T. J. L. C. Bakx, S. Serjeant, G. J. Bendo, S. A. Urquhart, S. Eales, ..., C. Yang, et al., submitted to MNRAS;

Invited Review
- **Extragalactic water new and far**
Chentao Yang, Eduardo González-Alfonso & Alain Omont, to be submitted to Royal Society Open Science (RSOS);

Presentations (‡: invited)

2015-2023, ordered by category:
***2 invited** conference talks, **9 contributed** talks, and 14 (incl. **7 invited**) seminar/colloquium talks*

‡ *Invited review talk*
- "Water in the Universe" Symposium, ACS Fall 2019 National Meeting & Exposition, San Diego, California, USA — August 25–29, 2019

Water vapor in galaxies at high redshift

‡*Invited conference talk* • The ALMA Quest for Our Cosmic Origins, Joint ALMA Observatory (JAO), Vitacura, Santiago, Chile March 27, 2018
Physical conditions of the ISM in high-redshift lensed submillimeter galaxies

---

Contributed talk • Behind a Curtain of Dust IV, Sexten Bozen, Italy July 11–15, 2022
The rich molecular inventory of dusty galaxies at high redshifts

Contributed talk • Multi-line Diagnostics of the Interstellar Medium, Nice, France April 4–6, 2022
The rich molecular inventory of two dusty galaxies twelve billion years ago

Contributed talk • KIAA forum on gas in galaxies: Multiple-phase Interstellar medium – Probing the Activities and Power Engines from Local to Distant Universe, Beijing, China September 9–13, 2019
The interstellar medium in high-redshift strongly gravitational lensed galaxies

Contributed talk • Views on the Interstellar Medium in galaxies in the ALMA era, Bologna, Emilia-Romagna, Italy September 2–6, 2019
Studying the ISM in high-redshift strongly lensed galaxies in the ALMA era

Contributed talk • The Laws of Star Formation: From the Cosmic Dawn to the Present Universe, Cambridge University, UK July 2–6, 2018
Molecular gas in high-redshift strongly lensed dusty starbursts as traced by multi-J CO lines

Contributed talk • The Eighth Sino-French "LIA-origins" Workshop: Probing Baryons in the Universe, Sèvres, Hauts-de-Seine, France November 14–18, 2016
H_2O and H_2O^+ emission in lensed hyper/ultra-luminous infrared galaxies at $z \sim 2$–4

Contributed talk • Water in the Universe: From Clouds to Oceans, European Space Agency (ESA/ESTEC), Noordwijk, Netherland April 11–15, 2016
H_2O Emission in Ultra-luminous Infrared Galaxies at High-z

---

‡*Colloquium talk* • University of Massachusetts Amherst and the Five College Astronomy Department, Massachusetts, USA February 25, 2021
Physical conditions of the ISM in dusty star-forming galaxies in the early universe

Colloquium talk • European Southern Observatory (ESO Santiago), Chile November 21, 2019
Water vapor in galaxies near and far

---

‡*Seminar talk* • South-Western Institute For Astronomy Research (SWIFR), China (online) Oct 12, 2022
The dusty ISM in high-redshift strongly lensed submillimeter galaxies

‡*Seminar talk* • Ecole Normale Supérieure (ENS), Paris, France (online) May 19, 2022
The dusty ISM in high-redshift strongly lensed submillimeter galaxies

‡*Seminar talk* • The Dominion Radio Astrophysical Observatory (DRAO), Kaleden, British Columbia, Canada (online) October 7, 2020
Extragalactic water across cosmic time

‡*Seminar talk* • CAS South America Center for Astronomy, Santiago, Chile January 8, 2020
Water vapor in galaxies near and far

‡*Seminar talk* • Astronomy Department, Beijing Normal University, China September 9, 2019
Water vapor in galaxies near and far

‡*Seminar talk* • The Cosmic Dawn Center, DTU-Space division, Denmark December 12, 2018
Physical conditions of the ISM in strongly lensed dusty star-forming galaxies in the early universe

Seminar talk • Centre for Extragalactic Astronomy, Durham University, UK June 29, 2018
Physical conditions of the interstellar medium in strongly lensed submillimeter galaxies at high-redshift

Seminar talk • Department of Physics, Oxford University, UK June 28, 2018
Physical conditions of the ISM in high-redshift strongly lensed dusty star-forming galaxies

Seminar talk • Instituto de Física y Astronomía, Universidad de Valparaíso, Chile January 18, 2018
Physical conditions of the ISM in high-redshift lensed submillimeter galaxies

Seminar talk • Institute of Astrophysics, PUC de Chile, Santiago, Chile December 20, 2017
Physical conditions of the interstellar medium in high-redshift lensed submillimeter

galaxies

Seminar talk • CAS South America Center for Astronomy, Santiago, Chile December 11, 2017
Tracing the physical conditions of the interstellar medium in high-redshift lensed submillimeter galaxies

Seminar talk • Astronomy Department, Beijing Normal University, China December 23, 2016
Physical conditions of the ISM in high-redshift submillimeter galaxies

---

Poster • From Stars to Galaxies II: Connecting our understanding of star and galaxy formation, Gothenburg, Sweden June 20–24, 2022
Probing the structure of the ISM in the high-redshift dusty starbursts with submillimeter H_2O lines

Poster • IAU Symposium 352: Uncovering early galaxy evolution in the ALMA and JWST era, Viana do Castelo, Portugal June 3–7, 2019
CO, H_2O, H_2O^+ line and dust emission in a $z = 3.63$ strongly lensed starburst merger at sub-kiloparsec scales

Poster • Journées Nationales PNCG 2015, Nice, France December 15–16, 2015
Submillimeter H_2O line emission in the lensed ultra-luminous infrared galaxies at $z \sim 2$–4

Poster • XXIX IAU-GA IAUS315: From interstellar clouds to star-forming galaxies: universal processes? Honolulu, Hawaii, USA August 03–07, 2015
Submillimeter H_2O emission in infrared bright galaxies near and far

Poster • XXIX IAU-GA FM15: Search for Water and Life's Building Blocks in the Universe, Honolulu, Hawaii, USA August 03–05, 2015
Water vapor emission in ultra-luminous infrared galaxies at $z \sim 2$–4

Grants & Awards

- **ESO Science Support Discretionary Fund (SSDF) - 9,000 EUR** 2020-2021
  Student mentoring project (on extragalactic [C I]) at European Southern Observatory
- **IAP Visitorship Grant - 700 EUR/week** March, 2020; May, 2019; July, 2018
  Institut d'Astrophysique de Paris, France
- **ESO Fellowship** 2017-2021
  European Southern Observatory, Chile
- **International Astronomical Union (IAU) Travel Grant - 1,100 USD** August 3–14, 2015
  XXIX IAU General Assembly, Honolulu, Hawaii, USA
- **The LIA-Origins Short Visit Program Grant - 3,000 EUR** 2012, 2013
  Institut d'Astrophysique de Paris & Institut d'Astrophysique Spatiale, France
- **Graduate with distinguished honour** 2010
  All the universities in Beijing
- **Graduate with distinguished honour** 2010
  Beijing Normal University
- **National Astronomical Observatories Scholarship** 2009
  National Astronomical Observatory of China
- **National Undergraduate Innovative Test Program Grant - 10,000 CNY** 2008
  National grant for the project: Design of the experiments for the course "Radio Astronomy"

Outreach Experiences

- **Core member of the Astronomy Club** 2007-2009
  Beijing Normal University
- **Authors of outreach articles (6 in total)** 2014-2017
  The "Amateur Astronomer" magazine
  (sponsored by Chinese Astronomical Society & Beijing Planetarium)
- **ALMA virtual tour guider** November 5, 2020
  Virtual guided tour of the ESO sites (for ESO Studentship candidates)

*(Last update: January, 2023. Contents in **green** and **purple** are clickable links.)*