

Chuan-Peng Zhang (张传朋)

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EDUCATION & WORK:

Staff

National Astronomical Observatories, CAS, Beijing, China July 2015 – Now

Ph.D. Programme

Max-Planck-Institut für Radioastronomie, Bonn, Germany Sep. 2013 – Aug. 2015
Supervisor: Prof. Dr. Friedrich Wyrowski, & Prof. Dr. Karl M. Menten

Ph.D. Programme

National Astronomical Observatories, CAS, Beijing, China July 2011 – June 2015
Supervisor: Prof. Dr. Jun-Jie Wang

Master of Science in Astrophysics

Xinjiang Astronomical Observatory, CAS, Xinjiang, China Aug. 2008 – June 2011
Supervisor: Prof. Dr. Jarken Esimbek

RESEARCH INTEREST:

Giant Molecular Cloud, Infrared Dust Bubble and Dark Cloud,
Hypercompact HII Region, Fragmentation and Deuteration in High-mass Star Formation

Pre-PUBLICATIONS:

- [1] **Zhang, C. P.**, Yuan, J. H., Li, G. X., Zhou, J. J., et al. 2016, A&A, [submitted](#)
<A multi-wavelength observation and investigation towards six infrared dark clouds>
- [2] **Zhang, C. P.** 2016, RAA, [submitted](#)
<Searching for initial stage of massive star formation around HII region G18.2-0.3>
- [3] **Zhang, C. P.** & Li, G. X. 2016, MNRAS, [submitted](#)
<Mass-size scaling $M \sim r^{1.67}$ of massive star-forming clumps – evidences of turbulence-regulated gravitational collapse>
- [4] **Zhang, C. P.**, Liu, T., Yuan, J. H., Wu, Y., et al. 2016, prep.
<TOP-SCOPE project in Quadrant II of the Milky Way>
- [5] **Zhang, C. P.**, Csengeri, T., Wyrowski, F., Pillai, T., et al. 2016, A&A, prep.
<Unveiling the initial conditions of high-mass star formation I. Fragmentation and evolution>
- [6] **Zhang, C. P.**, Wyrowski, F., Pillai, T., Csengeri, T., et al. 2016, A&A, prep.
<Unveiling the initial conditions of high-mass star formation II. Dynamics, stability, and chemistry>

PUBLICATIONS:

- [1] **Zhang, C. P.**, Li, G.-X., Wyrowski, F., Wang, J.-J., Yuan, J.-H., Xu, J.-L., Gong, Y., Yeh, C., & Menten, K. M. 2016, A&A, 585, A117 <[N131: A dust bubble born from the disruption of a gas filament](#)>

- [2] **Zhang, C. P.**, Wang, J. J., Xu, J. L., Wyrowski, F., & Menten, K. M. 2014, ApJ, 784, 107
<[Submillimeter Array and Very Large Array Observations in the Hypercompact H II Region G35.58-0.03](#)>
- [3] Xu, J. L., Wang, J. J., Ning, C. C., & **Zhang, C. P.** 2014, RAA, 14, 47
<[Multi-wavelength study of triggered star formation around 25 H II regions](#)>
- [4] **Zhang, C. P.**, Wang, J. J., & Xu, J. L. 2013, A&A, 550, A117
<[Molecular Clumps and Star Formation associated with the infrared dust bubble N131](#)>
- [5] **Zhang, C. P.**, & Wang, J. J. 2013, RAA, 13, 47
<[Star formation associated with the infrared dust bubble N68](#)>
- [6] **Zhang, C. P.**, & Wang, J. J. 2012, A&A, 522, A11
<[The multiwavelength study of the infrared dust bubble S51](#)>
- [7] **Zhang, C. P.**, Esimbek, J., Zhou, J. J., Wu, G., & Du, Z. M. 2012, Ap&SS, 337, 283
<[Exploring morphological correlations among H₂CO, ¹²CO, MSX, and continuum mappings](#)>
- [8] Du, Z. M., Zhou, J. J., Esimbek, J., Han, X. H., & **Zhang, C. P.** 2011, A&A, 532, A127
<[A H₂CO and H110 \$\alpha\$ survey of H II regions with the 25-m radio telescope of Nanshan Station](#)>

POSTERS & ORALS:

- [1] **Zhang, C. P.**, et al. 2015, MPIfR, talk
<The origin of the infrared dust bubble N131>
- [2] **Zhang, C. P.**, & Wang, J. J. 2013, IAUS, 292, 65, poster
<[Triggered Star Formation from Bubbles S51, N68, and N131](#)>
- [3] **Zhang, C. P.**, Esimbek, J., Zhou, J. J., Wu, G., & Du, Z. M. 2009, Chinese Astronomical Annual Meeting, talk
<H₂CO and H110 α observations toward giant molecular clouds>
- [4] **Zhang, C. P.**, Esimbek, J., Zhou, J. J., Wu, G., & Du, Z. M. 2010, Chinese Astronomical Annual Meeting, talk
<Large Area Mappings of Formaldehyde at 6-cm toward Giant Molecular Clouds>

OBSERVATIONAL PROJECTS & EXPERIENCE:

- [1] PI : **Zhang, C. P.**, JCMT 15m, #M16AP009, 75.0h
<The depletion of different species in dark and dense clumps>
- [2] PI : **Zhang, C. P.**, JCMT 15m, #M16BP024, 75.0h
<The depletion of different species in dark and dense clumps>
- [3] PI : **Zhang, C. P.**, Effelsberg 100m, #7-15, 26.7h
<Probing a hierarchical temperature structure of the bubble N131>
- [4] PI : **Zhang, C. P.**, JCMT 15m, #M15BI021, 16.0h
<H₂D⁺ in Massive Infrared Quiet Cores>
- [5] PI : **Zhang, C. P.**, JCMT 15m, #M15AI79, 3.0h
<N131: A dust bubble born from the disruption of a filament?>
- [6] PI : **Zhang, C. P.**, JCMT 15m, #M15AI69, 24.0h
<H₂D⁺ in Massive Infrared Quiet Cores>
- [7] PI : **Zhang, C. P.**, TAP-CSO 10.4m, 2015, 2 full nights
<H₂D⁺ in massive infrared quiet cores>
- [8] Astronomer On Duty (AoD) of Effelsberg 100m, June 2014 in Effelsberg Germany
<IDV observations>
- [9] PI : **Zhang, C. P.**, IRAM 30m, #167-13, 25.5h

<Molecular clumps triggered by the infrared dust bubble N131>

[10]PI : **Zhang, C. P.**, Delingha 13.7m #12A007, 15h

<Multiwavelength observations of infrared dust bubbles>

[11]PI and **AoD** of Urumqi 25m, Sep. 2009 - June 2011 in Xinjiang China

<A H₂CO and H110 α survey of H II regions with the 25m radio telescope>

AWARDS:

[1] Excellent Student ($\leq 15\%$) in 2012-2013, University of Chinese Academy of Sciences

[2] Excellent Student ($\leq 1\%$) in 2013-2014, University of Chinese Academy of Sciences

[3] National Scholarship for Graduate Students ($\leq 1\%$) in 2013-2014, in China

[4] Outstanding Graduate ($\leq 1\%$) in University of Chinese Academy of Sciences

[5] Excellent Doctoral Dissertation ($\leq 1\%$) in University of Chinese Academy of Sciences

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SKILLS & ABILITIES:

[1] Language: Chinese, English

[2] Data reduction: **GILDAS** (single dish and interferometer), **MIRIAD**, **AIPS**, **STARLINK**, and **Python**

[3] Sport: Table Tennis, Basketball, Volleyball, and Running

Last update: 11-21- 2016