Chuan-Peng Zhang（张传朋）

National Astronomical Observatories, CAS
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EDUCATION & WORK:

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

Postdoctoral Researcher
Max-Planck-Institut für Astronomie, Heidelberg, Germany Sep. 2017 – Now
Supervisor: Dr. Ralf Launhardt, & Prof. Dr. Thomas Henning

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

Ph.D. Programe
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
Protoplanetary disk

Pre-PUBLICATIONS:

[1]. Li, Guang-Xing; ***Zhang, Chuan-Peng*** "A mean density of 1000 $M_\odot$ pc^{-3} for Central Molecular Zone clumps — Evidences of shear-regulated pressure equilibrium" 2019.5, submitted

[2]. ***Zhang, Chuan-Peng***; Csengeri, Timea; Wyrowski, Friedrich; Li, Guang-Xing; Pillai, Thushara; Menten, Karl M.; Thompson, Mark A.; Pestalozz, Michele R. "Probing the initial conditions of high-mass star formation IV. Gas dynamics and NH_2D chemistry in high-mass pre/protocluster clumps" 2019.6, submitted

[3]. ***Zhang, Chuan-Peng***; Li, Guang-Xing; Zhou, Chenlin; Yuan, Lixia; Zhu, Ming "Using CO line ratios to trace compressed areas in bubble N131" 2019.6, submitted

[4]. ***Zhang, Chuan-Peng***; Launhardt, Ralf; Liu, Yao; Tobin, John; Henning, Thomas "Pebbles in an Embedded Protostellar Disk: The Case of CB26" 2019.7, prep.

[5]. ***Zhang, Chuan-Peng***; et al. "Probing the initial conditions of high-mass star formation V. Possible habitats for NH_3, NH_2D, $H^{13}CN$, $HC^{15}N$, SO, and $C^{18}O$" 2019.7, prep.

PUBLICATIONS:

[1]. ***Zhang, Chuan-Peng***; Csengeri, Timea; Wyrowski, Friedrich; Li, Guang-Xing; Pillai, Thushara; Menten, Karl M.; Hatchell, Jennifer; Thompson, Mark A.; Pestalozz, Michele R. "Probing the initial conditions of high-mass star formation III. Fragmentation and triggered star formation" 2019A&A…627A..85Z; Accepted for publication in A&A

[2]. Xu, Jin-Long; Zavagno, Annie; …; ***Zhang, Chuan-Peng***; … "The effects of ionization feedback on star formation: A case study of the M16 H II region" 2019A&A…627A..27X

[3]. Park, Geumsook; Kim, Kee-Tae; …; ***Zhang, Chuan-Peng***; … "Submillimeter continuum variability in Planck Galactic cold clumps" 2019arXiv190512147P

[4]. Coudé, Simon; Bastien, Pierre; …; ***Zhang, Chuan-Peng***; … "The JCMT BISTRO Survey: The Magnetic Field of the Barnard 1 Star-forming Region" 2019ApJ…877…88C

[5]. Liu, Junhao; Qiu, Keping; …; ***Zhang, Chuan-Peng***; … "The JCMT BISTRO Survey: The Magnetic Field in the Starless Core ρ Ophiuchus C" 2019ApJ…877…43L

[6]. Eden, D. J.; Liu, Tie; …; ***Zhang, Chuan-Peng***; … "SCOPE: SCUBA-2 Continuum Observations of Pre-protostellar Evolution - Survey Description and Compact Source Catalogue" 2019MNRAS.485.2895E

[7]. Wang, Jia-Wei; Lai, Shih-Ping; …; ***Zhang, Chuan-Peng***; … "JCMT BISTRO Survey: Magnetic Fields within the Hub-filament Structure in IC 5146" 2019ApJ…876…42W

[8]. Zhang, Guo-Yin; Xu, Jin-Long; Vasyunin, A. I.; …; ***Zhang, Chuan-Peng***; … "Physical properties and chemical composition of the cores in California molecular cloud" 2018A&A…620A.163Z

[9]. Juvela, Mika; Guillet, Vincent; Liu, Tie; …; ***Zhang, Chuan-Peng***; … "Dust spectrum and polarisation at 850 um in the massive IRDC G035.39-00.33" 2018A&A…620A..26J

[10]. Soam, Archana; Pattle, Kate; …; ***Zhang, Chuan-Peng***; … "Magnetic fields towards Ophiuchus-B derived from SCUBA-2 polarization measurements" 2018ApJ…861…65S

[11]. ***Zhang, Chuan-Peng***; Liu, Tie; Yuan, Jing-Hua; Sanhueza, Patricio; … "The TOP-SCOPE survey of PGCCs: PMO and SCUBA-2 observations of 64 PGCCs in the 2nd Galactic Quadrant" 2018ApJS..236…49Z; Supplementary figures can be downloaded here.

[12]. Kwon, Jungmi; Doi, Yasuo; …; ***Zhang, Chuan-Peng***; … "A First Look at BISTRO Observations of The ρ Oph-A core" 2018ApJ…859….4K

[13]. Liu, Tie; Li, Pak Shing; …; ***Zhang, Chuan-Peng***; … "A holistic perspective on the dynamics of G035.39-00.33: the interplay between gas and magnetic fields" 2018ApJ…859..151L

[14]. Tang, Mengyao; Liu, Tie; …; ***Zhang, Chuan-Peng***; … "The properties of Planck Galactic cold clumps in the L1495 dark cloud" 2018ApJ…856..141T

[15]. Liu, Tie; Kim, Kee-Tae; …; ***Zhang, Chuan-Peng***; … "The TOP-SCOPE survey of Planck Galactic Cold Clumps: Survey overview and results of an exemplar source, PGCC G26.53+0.17" 2018ApJS..234…28L

[16]. Xu, Jin-Long; Xu, Ye; ***Zhang, Chuan-Peng***; Liu, Xiao-Lan; Yu, Naiping; Ning, Chang-Chun; Ju, Bing-Gang "Gas kinematics and star formation in the filamentary molecular cloud G47.06+0.26" 2018A&A…609A..43X

[17]. Liu, Xiao-Lan; Xu, Jin-Long; Ning, Chang-Chun; ***Zhang, Chuan-Peng***; Liu, Xiao-Tao "A statistical study towards the high-mass BGPS clumps with the MALT90 survey"2018RAA….18….4L

[18]. Xu, Jin-Long; Xu, Ye; Yu, Naiping; ***Zhang, Chuan-Peng***; Liu, Xiao-Lan; Wang, Jun-Jie; Ning, Chang-chun; Ju, Bing-Gang; Zhang, Guo-Yin "Two-dimensional Molecular Gas and Ongoing Star Formation around H II Region Sh2-104" 2017ApJ…849..140X

[19]. Xu, Jin-Long; Yu, Naiping; ***Zhang, Chuan-Peng***; Liu, Xiao-Lan "Gas structure and dynamics towards bipolar infrared bubble" 2017Ap&SS.362..175X

[20]. ***Zhang, Chuan-Peng***; Li, Guang-Xing "Mass-size scaling M ~ $r^{1.67}$ of massive star-forming clumps - evidences of turbulence-regulated gravitational collapse" 2017MNRAS.469.2286Z

[21]. ***Zhang C P***, Wang J J. "Progresses and methods in research of infrared dust bubble (in Chinese)" 2017Sci Sin-Phys Mech Astron.47..9

[22]. ***ZHANG Chuan-peng*** "High-mass Star Formation and Its Initial Conditions (大质量恒星形成及其初始条件)" 2017AcASn..58…62Z

[23]. Ward-Thompson, Derek; Pattle, Kate; …; ***Zhang, Chuan-Peng***; … "First Results from BISTRO: A SCUBA-2 Polarimeter Survey of the Gould Belt" 2017ApJ…842…66W

[24]. ***Zhang, Chuan-Peng***; Yuan, Jing-Hua; Xu, Jin-Long; Liu, Xiao-Lan; Yu, Nai-Ping; Li, Nan; He, Li-Ping; Zhang, Guo-Yin; Wang, Jun-Jie "Searching for initial stage of massive star formation around the H II region G18.2-0.3" 2017RAA….17…57Z

[25]. Liu, Xiao-Lan; Wang, Jun-Jie; Xu, Jin-Long; ***Zhang, Chuan-Peng*** "Gas emission and dynamics in the infrared dark cloud G31.23+0.05" 2017RAA….17…35L

[26]. ***Zhang, Chuan-Peng***; Yuan, Jing-Hua; Li, Guang-Xing; Zhou, Jian-Jun; Wang, Jun-Jie "A multiwavelength observation and investigation of six infrared dark clouds" 2017A&A…598A..76Z

[27]. Wang, Song; Bai, Yu; ***Zhang, Chuan-Peng***; Liu, Ji-Feng "An investigation of a magnetic cataclysmic variable with a period of 14.1 ks" 2017RAA….17…10W

[28]. Xu, Jin-Long; Li, Di; ***Zhang, Chuan-Peng***; Liu, Xiao-Lan; Wang, Jun-Jie; Ning, Chang-Chun; Ju, Bing-Gang "Gas Kinematics and Star Formation in the Filamentary IRDC G34.43+0.24" 2016ApJ…819..117X

[29]. ***Zhang, Chuan-Peng***; Li, Guang-Xing; Wyrowski, Friedrich; Wang, Jun-Jie; Yuan, Jing-Hua; Xu, Jin-Long; Gong, Yan; Yeh, Cosmos C.; Menten, Karl M. "N131: A dust bubble born from the disruption of a gas filament" 2016A&A…585A.117Z

[30]. ***Zhang, Chuan-Peng***; Wang, Jun-Jie; Xu, Jin-Long; Wyrowski, Friedrich; Menten, Karl M. "Submillimeter Array and Very Large Array Observations in the Hypercompact H II Region G35.58-0.03" 2014ApJ…784..107Z

[31]. Xu, Jin-Long; Wang, Jun-Jie; Ning, Chang-Chun; ***Zhang, Chuan-Peng*** "Multi-wavelength study of triggered star formation around 25 H II regions" 2014RAA….14…47X

[32]. ***Zhang, C.-P.***; Wang, J.-J.; Xu, J.-L. "Molecular clumps and star formation associated with the infrared dust bubble N131" 2013A&A…550A.117Z

[33]. ***Zhang, Chuan-Peng***; Wang, Jun-Jie "Star formation associated with the infrared dust bubble N68" 2013RAA….13…47Z

[34]. ***Zhang, C. P.***; Wang, J. J. "Multiwavelength study of the infrared dust bubble S51"2012A&A…544A..11Z

[35]. ***Zhang, Chuan Peng***; Esimbek, Jarken; Zhou, Jian Jun; Wu, Gang; Du, Zhi Mao "Exploring morphological correlations among H_2CO, ^{12}CO, MSX and continuum mappings"2012Ap&SS.337..283Z

[36]. Du, Z. M.; Zhou, J. J.; Esimbek, J.; Han, X. H.; ***Zhang, C. P.*** "A H_2CO and H110α survey of H ii regions with the 25-m radio telescope of Nanshan Station" 2011A&A…532A.127D

OBSERVATIONAL PROJECTS & EXPERIENCE:

[1]. Li, G.-X.; ***Zhang, C.-P.***, JCMT 15m, #M19BP047, 10.0h

"Mapping a cometary globule with a conical shape using CO isotopes"

[2]. PI: ***Zhang, C.-P.***, IRAM 30m, #022-19, 30.0h

"Dynamics and magnetic field of a starless core with an extremely narrow linewidth"

[3]. Li, G.-X.; ***Zhang, C.-P.***; Qin, S.-L.; Shi, X., IRAM 30m, #006-19, 15.2h

"Mapping a cometary globule with a conical shape using CO isotopes"

[4]. PI: ***Zhang, C.-P.***, IRAM 30m, #118-18, 25.2h

"Dynamics and magnetic field of a prestellar core with an extremely narrow linewidth"

[5]. PI: ***Zhang, C.-P.***, IRAM 30m, #154-18, 19.0h

"The feedback from H II region Sh2-82 onto a filamentary molecular cloud"

[6]. PI: ***Zhang, C.-P.***, IRAM 30m, #024-18, 20.0h

"How to explain the extremely narrow linewidth in G157.25?"

[7]. Zhou, C.-L.; ***Zhang, C.-P.***; Yuan, L.-X., JCMT 15m, #M18BP069, 3.0h

"Warm gas observation in bubble N131"

[8]. Zhou, C.-L.; Yuan, L.-X.; ***Zhang, C.-P.***; Zhu, M., JCMT 15m, #M17BP077, 10.5h

"Warm gas observation in bubble N131"

[9]. PI: ***Zhang, C.-P.***, JCMT 15m, #M16BP024, 75.0h

"The depletion of different species in dark and dense clumps"

[10]. PI: ***Zhang, C.-P.***, JCMT 15m, #M16AP009, 75.0h

"The depletion of different species in dark and dense clumps"

[11]. PI: ***Zhang, C.-P.***, Effelsberg 100m, #7-15, 26.7h

"Probing a hierarchical temperature structure of the bubble N131"

[12]. PI: ***Zhang, C.-P.***, JCMT 15m, #M15BI021, 16.0h

"H_2D^+ in Massive Infrared Quiet Cores"

[13]. PI: ***Zhang, C.-P.***, JCMT 15m, #M15AI79, 3.0h

"N131: A dust bubble born from the disruption of a filament?"

[14]. PI: ***Zhang, C.-P.***, JCMT 15m, #M15AI69, 24.0h

"H_2D^+ in Massive Infrared Quiet Cores"

[15]. PI: ***Zhang, C.-P.***, TAP-CSO 10.4m, 2015, 2 full nights

"H_2D^+ in massive infrared quiet cores"

[16]. Astronomer On Duty (AoD) of Effelsberg 100m, June 2014 in Effelsberg

"IDV observations"

[17]. PI: ***Zhang, C.-P.***, IRAM 30m, #167-13, 25.5h

"Molecular clumps triggered by the infrared dust bubble N131"

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

"Multiwavelength observations of infrared dust bubbles"

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

"A H_2CO and H110α survey of H II regions with the 25m radio telescope"

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

<H_2CO and H110α 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>

AWARDS:

[1]. Excellent Student (≤ **15%**) in 2012-2013, University of Chinese Academy of Sciences

[2]. Excellent Student (≤ **1%**) in 2013-2014, University of Chinese Academy of Sciences

[3]. National Scholarship for Graduate Students (≤ **1%**) in 2013-2014, in China

[4]. Outstanding Graduate (≤ **1%**) in University of Chinese Academy of Sciences

[5]. Excellent Doctoral Dissertation (≤ **1%**) in University of Chinese Academy of Sciences

...

SKILLS & ABILITIES:

[1]. Language: Chinese, English

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

[3]. Simulation: **RADMC-3D**

[4]. Sport: Table Tennis, Basketball, Volleyball, Running, and photography

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Last update: 18-07-2019