



JINGHUA YUAN

Curriculum Vitae (January 5, 2018)

<i>Birth</i>	December 21, 1985, in Heze, Shandong Province , China
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APPOINTMENTS

Assistant Research Fellow <i>National Astronomical Observatories, Chinese Academy of Sciences</i>	2014-
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EDUCATION

PhD Astrophysics <i>University of Chinese Academy of Sciences</i> “Multi-wavelength investigations on feedback of massive star formation” Thesis advisor: Dr. Jinzeng Li (NAOC) / Prof. Yuefang Wu (PKU)	2009-2014
BS Physics <i>University of Jinan</i> “Applications of MATLAB in the Electrodynamics Teaching”. Academic/Research advisors: Prof. Yi Jin	2005-2009

RESEARCH INTERESTS

- Star formation
- Astrochemistry
- Protoplanetary disks

FUNDING

- National Natural Science Foundation (NSFC), “Identification and pilot investigations of massive starless clumps”, RMB 260,000 (PI, 2016 - 2018).
- NSFC, “Clustered and Triggered Star Formation under the Influence of HII Regions”, RMB 812,000 (co-I, 1/16 - 12/19).

- NSFC, “Selection and classification of young stellar objects and multiwavelength investigation of embedded clusters”, RMB 300,000 (co-I, 1/15 - 12/17).
- Beijing Natural Science Foundation, “Source selection criteria and multiwavelength investigations of embedded clusters”, RMB 60,000 (co-I, 1/14 - 12/15).
- National Astronomical Observatory of China, “High Resolution Study of an Extended Green Object: G22.04+0.22”, RMB 30,000 (PI, 6/14 - 5/16).
- Ministry of Science and Technology of the P.R.China, “Building a 40-m antenna in San Juan for collaborative VLBI observations and research”, RMB 74,190,000 (co-I, 1/11 - 12/15).
- NSFC, “Multiwavelength investigations of the formation and early evolutions of open clusters”, RMB 550,000 (co-I, 1/11 - 12/13).

PEER-REVIEWED JOURNAL PAPERS [\[ADS LINK\]](#)[\[ARXIV\]](#)

First-authored Papers

6. **Yuan, Jinghua**; Li, Jin-Zeng; Wu, Yuefang; Ellingsen, Simon P.; Henkel, Christian; Wang, Ke; Liu, Tie; Liu, Hong-Li; Zavagno, Annie; Ren, Zhiyuan; Huang, Ya-Fang, “[High-mass Star Formation through Filamentary Collapse and Clump-fed Accretion in G22](#)”, *ApJ*, 852, 12 (2018).
5. **Yuan, Jinghua**; Wu, Yuefang; Ellingsen, Simon P.; Evans, Neal J., II; Henkel, Christian; Wang, Ke; Liu, Hong-Li; Liu, Tie; Li, Jin-Zeng; Zavagno, Annie, “[High-mass Starless Clumps in the inner Galactic Plane: the Sample and Dust Properties](#)”, *ApJS*, 231, 11 (2017).
4. **Yuan, Jinghua**; Wu, Yuefang; Liu, Tie; Zhang, Tianwei; Zeng Li, Jin; Liu, Hong-Li; Meng, Fanyi; Chen, Ping; Hu, Runjie; Wang, Ke, “[Dense Gas in Molecular Cores Associated with Planck Galactic Cold Clumps](#)”, *ApJ*, 820, 37 (2016).
3. **Yuan, Jing-Hua**; Wu, Yuefang; Li, Jin Zeng; Liu, Hongli, “[Expanding Shell and Star Formation in the Infrared Dust Bubble N6](#)”, *ApJ*, 797, 40 (2014).
2. **Yuan, Jing-Hua**; Wu, Yuefang; Li, Jin Zeng; Yu, Wentao; Miller, Martin, “[A mapping study of L1174 with 13CO J=2-1 and 12CO J=3-2: star formation triggered by a Herbig Ae/Be star](#)”, *MNRAS*, 429, 954 (2013).
1. **Yuan, Jing-Hua**; Li, Jin Zeng; Huang, Ya Fang; Hsia, Chih-Hao; Miao, Jingqi, “[The discovery based on GLIMPSE data of a protostar driving a bipolar outflow](#)”, *A&A*, 540, A95 (2012).

Co-authored Papers

11. Ward-Thompson, Derek; Pattle, Kate; ... **Yuan, Jinghua**; et al., “[First Results from BISTRO: A SCUBA-2 Polarimeter Survey of the Gould Belt](#)”, *ApJ*, 842, 66 (2017).
10. Liu, Hong-Li; Figueira, Miguel; Zavagno, Annie; ... Wu, Yuefang; **Yuan, Jing-Hua**; Huang, Maohai, “[Herschel observations of the Galactic H II region RCW 79](#)”, *A&A*, 602, A95 (2017).
9. Zhang, Chuan-Peng; **Yuan, Jing-Hua**; Xu, Jin-Long; et al., “[Searching for initial stage of massive star formation around the H II region G18.2-0.3](#)”, *RAA*, 17, 057 (2017).

8. Zhang, Chuan-Peng; **Yuan, Jing-Hua**; Li, Guang-Xing; et al., “[A multi-wavelength observation and investigation towards six infrared dark clouds](#)”, *A&A*, 598, A76 (2017).
7. Gama, D. R. G.; Lepine, J. R. D.; Mendoza, E.; Wu, Y.; **Yuan, J.**, “[CO observations and investigation of triggered star formation towards N10 infrared bubble and surroundings](#)”, *ApJ*, 830, 57 (2016).
6. Zhang, Si-Ju; Wu, Yuefang; Li, Jin Zeng; **Yuan, Jing-Hua**; Liu, Hong-Li; Dong, Xiaoyi; Huang, Ya-Fang, “[Feedback of the HBe star IL Cep on nearby molecular cloud and star formation](#)”, *MNRAS*, 458, 4222 (2016).
5. Liu, Hong-Li; Li, Jin-Zeng; Wu, Yuefang; **Yuan, Jing-Hua**; Liu, Tie; Dubner, G.; Paron, S.; Ortega, M. E.; Molinari, Sergio; Huang, Maohai; and 4 coauthors, “[Interactions of the Infrared Bubble N4 with Its Surroundings](#)”, *ApJ*, 818, 95 (2016).
4. Liu, Tie; Zhang, Qizhou; Kim, Kee-Tae; Wu, Yuefang; Lee, Chang Won; ...; **Yuan, Jinghua**; Li, Di; et al., “[Planck Cold Clumps in the \$\lambda\$ Orionis Complex. I. Discovery of an Extremely Young Class 0 Protostellar Object and a Proto-brown Dwarf Candidate in the Bright-rimmed Clump PGCC G192.32-11.88](#)”, *ApJS*, 222, 7 (2016).
3. 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](#)”, *A&A*, 585, A117 (2016).
2. Paron, S.; Ortega, M. E.; Dubner, G.; **Yuan, Jing-Hua**; Petriella, A.; Giacani, E.; Li, Jin Zeng; Wu, Yuefang; et al., “[H II Region G46.5-0.2: The Interplay between Ionizing Radiation, Molecular Gas, and Star Formation](#)”, *AJ*, 149, 193 (2015).
1. Liu, Hong-Li; Wu, Yuefang; Li, JinZeng; **Yuan, Jing-Hua**; Liu, Tie; Dong, Xiaoyi, “[A Feedback-driven Bubble G24.136+00.436: A Possible Site of Triggered Star Formation](#)”, *ApJ*, 798, 30 (2015).

Submitted and in Preparation

8. **Yuan, Jinghua**; et al, *WISE Extended Green Objects (WEGOS): A New Sample of Outflow Candidates in the Whole Sky*, in preparation
7. Li, Hao; Li, Jin-Zeng; **Yuan, Jinghua**; Huang, Ya-Fang; Ren, Zhiyuan, *Gas compression and likely triggered star formation in the infrared bubble N107*, *A&A*, submitted
6. Wang, Zi; **Yuan, Jinghua**; Wu, Yuefang; Qin, Sheng-Li; Li, Jin-Zeng, *Simultaneous formation of two high-mass stars within 0.1 pc region of EGO G014.33-0.64*, in preparation
5. Zhou, Chenlin; Zhu, Ming; **Yuan, Jinghua**; Wu, Yuefang; Yuan, Lixia, *Star Formation in IRDC G31.97+0.07*, in preparation
4. Zhang, Chuan-Peng; Liu, Tie; **Yuan, Jinghua**; Sanhueza, Patricio; Traficante, Alessio; et al., *The TOP-SCOPE Survey of PGCCs: PMO and SCUBA-2 Observations of 64 PGCCs in the 2nd Galactic Quadrant*, in preparation
3. Wu, Yuefang; Lin, Lianghao; Liu, Xunchuan; Chen, Xi; Ju, Binggang; Zhang, Chao; Liu, Tie; **Yuan, Jinghua**; Wang, Junzhi; Shen, Zhiqiang; Kim, Kee-Tae; Qin, Sheng-Li; et al., *Linear Carbon Chain Molecules in L1489*, in preparation

2. Wu, Yuefang; Liu, Xunchua; **Yuan, Jinghua**; Chen, Xi; Lin, Lianghao; Liu, Tie; et al. *Linear Carbon Chain Molecules in Molecular Outflow Sources and Lupus I Region*, in preparation
1. Liu Hong-Li; Li, Hua-Bai; Stutz, Amelia; **Yuan, Jinghua**, *Global Properties of the Filament G350.5 and its star formation*, in preparation

CONFERENCE PAPERS

6. Huang, Ya-Fang; Li, Jin-Zeng; **Yuan, Jing-Hua**; Liu, Hong-Li, “Efficient Selection and Classification of Infrared Excess Emission Stars Based on AKARI and 2MASS Data”, *IAUS*, 316, 147 (2017).
5. Li, Jin-Zeng; **Yuan, Jinghua**; Liu, Hong-Li; Wu, Yuefang; Huang, Ya-Fang, “Drama of HII regions: Clustered and Triggered Star Formation”, *IAUS*, 316, 129 (2015).
4. Wu, Y.; Liu, T.; Meng, F.; **Yuan, J.**; Zhang, T.; Chen, P.; Hu, R.; Li, D.; Qin, S.; Ju, B., “Physical properties of Planck Cold Dust Clumps”, *EAS Publications Series*, Volume 75-76, pp.277-280 (2016).
3. Zhang, Chengpeng; Wu, Yuefang; **Yuan, Jing-Hua**; Liu Tie, “The feedback of Herbig Ae/Be stars”, *Proceedings of the International Astronomical Union*, Volume 11, Issue S315 (2015).
2. Liu, Tie; Wu, Yuefang; Mardones, Diego; Kim, Kee-Tae; Menten, Karl M.; ...; **Yuan, Jinghua**; Belloche, Arnaud; Henkel, Christian; et al., “Follow-Up Observations Toward Planck Cold Clumps with Ground-Based Radio Telescopes”, *APRIM proceeding*, PKAS, 30, 79 (2015).
1. Gama, D.; Lepine, J.; Wu, Y.; **Yuan, J.**, “The Bubble N10”, *XIV Latin American Regional IAU Meeting*, Vol. 44, pp. 135-135 (2014).

APPROVED OBSERVING PROPOSALS

- **PI, 36 hours (six tracks), SMA # 2017B**
Internal structures of high-mass starless clumps in different environments
- **PI, 90 hours, KVN in single dish mode # 2015B**
Dense gas in high-mass starless clump candidates
- **PI, 13 hours, ASTE, # 2015A**
Parsec-Scale Kinematics of Massive Outflow Candidates
- **PI, 15 hours, JCMT # 2015A**
A study of outflows and infalls in EGOs with molecular lines at submillimeter
- **PI, 16 hours, CSO # 2014B**
A study of outflows and infalls in EGOs with molecular lines at millimeter
- **co-I, 30 hours, JVL A, # 2018A (PI: Siyi Feng)**
Temperature and density structure of high mass, low luminosity/mass ratio clumps
- **co-I, 17 hours, JCMT, # 2018A (PI: Lixia Yuan)**
JCMT observations of the 'hub' filament of G181.84+0.31

- **co-I, 75 hours, IRAM 30-m, # 2017B (PI: Siyi Feng)**
Initial star-forming activities towards the high-mass, low luminosity-to-mass ratio clumps
- **co-I, 26 hours, Nobeyama 45-m, # 2017B (PI: Lixia Yuan)**
Follow-up observation of the filamentary flows in G181.84+0.31
- **co-I, 35 hours, Nobeyama 45-m, # 2017B (PI: Siyi Feng)**
Initial star-forming activities towards the high-mass, low luminosity/mass ratio clumps
- **co-I, 30 hours, JCMT, # 2016B (PI: Chuan-Peng Zhang)**
The depletion of different species in dark and dense clumps
- **co-I, >300 hours, TRA0, # from 2015 (PI: Tie Liu)**
TRA0 Observations of PGCCs
- **co-I, > 200 hours, JCMT, # from 2015 (PI: Tie Liu)**
SCOPE: SCUBA-2 Continuum Observations of Pre-protostellar Evolution
- **co-I, > 200 hours, JCMT, # from 2015 (PI: Gregory Herczeg)**
A Transient search for variable protostars – HOW DO STARS GAIN THEIR MASS?
- **co-I, > 200 hours, JCMT, # from 2015 (PI: D. Ward-Thompson)**
BISTRO: B-fields In STar forming RegiOns
- **Co-I, 618 hours, SMT 10-m, # from 2015 (PI: Ke Wang)**
SMT “All-sky” Mapping of PPlanck Interstellar Nebulae in the Galaxy (SAMPLING)

MEETINGS AND CONFERENCES

- **Molecular Cloud and Star Formation Workshop 2017, Yichang, China, Oct. 2017**
High-mass star formation through filamentary collapse and clump-fed accretion in G22 (oral talk)
- **IAUS336: Astrophysical Masers – Unlocking the Mysteries of the Universe, Cagliari, Italy, Sep. 2017**
Filamentary Flows and Clump-fed High-mass Star Formation in G22 (poster)
- **The Chinese Annual Astronomy Meeting 2017, Urumqi, China, Aug. 2017**
Filamentary Flows and Clump-fed High-mass Star Formation in G22 (oral talk)
- **2017 Asia-Pacific Regional IAU Meeting, Taipei, Taiwan, July 2017**
Hunting for high-mass starless clumps in the inner Galactic Plane (oral talk)
Dynamic massive star formation in G22.04+0.22: hot core, multipolar outflow, global infall, and millimeter methanol masers (poster)
- **Workshop for follow-up surveys of Planck Galactic Cold Clumps, Beijing, China, Dec. 2016**
High-Mass Starless Clumps in the Galactic Plane (oral talk)
A Demo on the Reduction of CO Data Collected using PMO 13.7-m (oral talk)
- **Star Formation Workshop, Dali, China, Sep. 2016**
Identification of High-Mass Starless Clumps in the Galactic Plane (oral talk)
Dramas of Hii Regions — regulating ISM and star formation (oral talk)

- Chinese Radio Astronomy and Technology 2016, Urumqi, China, Aug. 2016
- The Chinese Annual Astronomy Meeting 2015, Beijing, China, Oct. 2015
Identification of High-Mass Starless Clumps in the Galactic Plane (oral talk)
- The 3rd Chinese-German Workshop on Star and Planet Formation, Nanjing, China, Mar. 2015
Dramas of HII regions — clustered and triggered star formation (oral talk)
- The 3rd Chinese Regional JCMT workshop, Beijing, China, Jan. 2015
- IAU 28th General Assembly, Beijing, China, Aug. 2012 (poster)
- The 13th Synthesis Imaging Workshop, Socorro, NM, US, June 2012
- Chinese Radio Astronomy and Technology 2011, Kunming, July 2011
- Star formation and Galactic Structure Workshop, Yixing, China, Mar. 2011

SKILLS

- Advanced: Python, GILDAS
- Experienced: MIRIAD, CASA, Ds9, Montage, L^AT_EX, STARLINK
- Operating Systems: Linux, Mac OS, Windows
- Languages: Chinese (mother tongue), English (fluent)

AWARDS

- 2014 Pacemaker to Merit Student, University of Chinese Academy of Sciences (UCAS)
- 2013 National Scholarship for Graduated Students (PhD level), Ministry of Education of the P.R. China
- 2013 UCAS-BHP Billiton Scholarship, UCAS and BHPB
- 2013 Merit Student, UCAS

REFERENCES

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