

# Jinghua Yuan

Curriculum Vitae (December 16, 2016)

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## **APPOINTMENTS**

#### Research Assistant Professor

2014-

National Astronomical Observatories, Chinese Academy of Sciences

#### **EDUCATION**

#### PhD Astrophysics

2009-2014

National Astronomical Observatories, Chinese Academy of Sciences

"Multi-wavelength investigations on feedback of massive star formation" Thesis advisor: Dr. Jinzeng Li (NAOC) / Prof. Yuefang Wu (PKU)

BS Physics 2005-2009

University of Jinan

"Applications of MATLAB in the Electrodynamics Teaching".

Academic/Research advisors: Prof. Yi Jin

## RESEARCH INTERESTS

- formation of low- to high-mass stars
- feedback of massive star in their early evolutionary stages
- initial conditions of star-forming regions
- formation and evolution of molecular clouds
- molecular outflows and their interactions with natal clouds

#### **RESEARCH SKILLS**

- Python: image processing, data visualization, data analysis, table manipulation
- GILDAS: reduction and analysis of molecular line data collected using single-dish radio telescopes
- MIRIAD: reduction and analysis of data collected using the SMA interferometer

- CASA: reduction and analysis of data collected using the JVLA and ALMA interferometers
- STARLINK: reduction of both heterodyne and continuum data of JCMT
- IRAF: reduction of spectroscopic data collected using optical telescope; photometry of optical and infrared images
- IDL: data visualization
- LaTeX: typesetting in both English and Chinese

# PEER-REVIEWED JOURNAL PAPERS [ADS Link][arXiv]

- 12. Zhang, Chuan-Peng; <u>Yuan</u>, <u>Jing-Hua</u>; Li, Guang-Xing; Zhou, Jian-Jun; Wang, Jun-Jie, "A multi-wavelength observation and investigation towards six infrared dark clouds", *arXiv*, 1611.08794 (2017).
- 11. Gama, D. R. G.; Lepine, J. R. D.; Mendoza, E.; Wu, Y.; <u>Yuan, J.</u>, "CO observations and investigation of triggered star formation towards N10 infrared bubble and surroundings", *ApJ*, 830, 57 (2016).
- 10. Zhang, Si-Ju; Wu, Yuefang; Li, Jin Zeng; <u>Yuan, Jing-Hua</u>; 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).
- 9. 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).
- 8. Liu, Hong-Li; Li, Jin-Zeng; Wu, Yuefang; <u>Yuan, Jing-Hua</u>; 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).
- 7. 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).
- 6. 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).
- 5. Paron, S.; Ortega, M. E.; Dubner, G.; Yuan, Jing-Hua; Petriella, A.; Giacani, E.; Li, Jin Zeng; Wu, Yuefang; Liu, Hongli; Huang, Ya Fang; Zhang, Si-Ju, "H II Region G46.5-0.2: The Interplay between Ionizing Radiation, Molecular Gas, and Star Formation", AJ, 149, 193 (2015).
- 4. 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).

- 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).

#### CONFERENCE PAPERS

- 5. 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).
- 4. 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).
- 3. Li, Jinzeng; Yuan, Jinghua; LIU, Hongli; Wu, Yuefang; Huang, Yafang, "Drama of HII regions: Clustered and Triggered Star Formation", IAU General Assembly, Meeting #29, id.2256434 (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).

#### **FUNDING**

- National Natural Science Foundation (NSFC), "Identification and pilot investigations of massive starless clumps", RMB 260,000 (PI, 1/16 12/18).
- NSFC, "Clustered and Triggered Star Formation under the Influence of HII Regions", RMB 812,000 (co-PI, 1/16 12/19).
- NSFC, "Selection and classification of young stellar objects and multiwavelength investigation of embedded clusters", RMB 300,000 (co-PI, 1/15 12/17).
- Beijing Natural Science Foundation, "Source selection criteria and multiwavelength investigations of embedded clusters", RMB 60,000 (co-PI, 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-PI, 1/11 12/15).
- NSFC, "Multiwavelength investigations of the formation and early evolutions of open clusters", RMB 550,000 (co-PI, 1/11 12/13).

## **MEETINGS AND CONFERENCES**

- Star Formation Workshop, Dali, China, 9/16 (oral talk)
- Chinese Radio Astronomy and Technology 2016, Urumqi, China, 8/16
- The Chinese Annual Astronomy/Astrophysics Meeting 2015, Beijing, China, 10/15 (oral talk)
- The 3rd Chinese-German Workshop on Star and Planet Formation, Nanjing, China, 3/15 (oral talk)
- The 3rd Chinese Regional JCMT workshop, Beijing, China, 1/15
- IAU 28th General Assembly, Beijing, China, 8/12 (poster)
- The 13th Synthesis Imaging Workshop, Socorro, NM, US, 6/12
- Chinese Radio Astronomy and Technology 2011, Kunming, 7/11
- Star formation and Galactic Structure Workshop, Yixing, China, 3/11

## **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