Yan Gong

Max-Planck Institut für Radioastronomie

Auf dem Hügel 69 Bonn 53121, Germany

Homepage: http://gongyan2444.github.io/

Mobile: (0049) 157 7154 4476 Fax : (0049) 228 525 435 Skype: gongyan2444

Email: ygong@mpifr-bonn.mpg.de

gongyan2444@gmail.com

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RESEARCH INTERESTS

• Large-scale structure and kinematics of molecular clouds

- Star formation in molecular clouds
- Astrochemistry
- Astronomical masers
- Circumstellar envelopes of late-type stars

EDUCATION

09/2009-07/2016 Ph.D. in Astrophysics, Purple Mountain Observatory

Thesis: "A search for triggered star formation and a 1.3 cm spectral line survey"

Advisors: Prof. Dr. Rui-qing Mao & Dr. Christian Henkel

09/2005-07/2009 B.Sc. in physics, Central China Normal University

PROFESSIONAL APPOINTMENTS

07/2016–08/2017 Research assistant, Purple Mountain Observatory 09/2017– Postdoc, Max-Planck Institut für Radioastronomie

REFEREED PUBLICATIONS

- 15. <u>Gong, Y.</u>; Tang, X.D.; Henkel, C.; Menten, K.M.; Mao, R.Q.; Wang, Y.; Lee, M.-Y.; Zhu, W.S.;, Lin, Y.; Zhang, S.B.; Chen, X.P.; Yang, W.J., 2019, A&A, accepted, Search for further evidence for cloud-cloud collisions in L1188
- 14. Humire, P.; Henkel, C.; <u>Gong, Y.</u>; Leurini, S.; Mauersberger, R.; Levshakov, S. A.; Winkel, B.; Tarchi, A.; Castangia, P.; Malawi, A.; Asiri, H.; Ellingsen, S. P.; McCarthy, T. P.; Chen, X.; Tang, X., A&A, accepted, 36 GHz methanol lines from nearby galaxies: maser or quasi-thermal emission?
- 13. Tang, X. D.; Henkel, C.; Menten, K. M.; Gong, Y.; Martin, S.; Muhle, S.; Aalto, S.; Muller, S.; Garcia-Burillo, S.; Levshakov, S.; Aladro, R.; Spaans, M.; Viti, S.; Asiri, H. M.; Ao, Y. P.; Zhang, J. S.; Zheng, X. W.; Esimbek, J.; Zhou, J. J., A&A, 629, A6, ALMA view of the ¹²C/¹³C isotopic ratio in starburst galaxies
- 12. Medina, S. N. X.; Urquhart, J. S.; Dzib, S. A.; Brunthaler, A.; Cotton, B.; Menten, K. M.; Wyrowski, F.; Beuther, H.; Billington, S. J.; Carrasco-Gonzalez, C.; Csengeri, T.; **Gong**, Y.; Hofner, P.; Nguyen, H.;

- Ortiz-LeÃşn, G. N.; Ott, J.; Pandian, J. D.; Roy, N.; Sarkar, E.; Wang, Y. Winkel, B., A&A, 627, A175, GLOSTAR Radio Source Catalog I: $28^{\circ} < l < 36^{\circ}$ and $|b| < 1^{\circ}$
- 11. Su, Yang; Yang, Ji; Zhang, Shaobo; <u>Gong, Yan</u>; Wang, Hongchi; Zhou, Xin; Wang, Min; Chen, Zhiwei; Sun, Yan; Chen, Xuepeng; Xu, Ye; Jiang, Zhibo, 2019, ApJS, 240, 9, *The Milky Way Imaging Scroll Painting (MWISP): Project Details and Initial Results from the Galactic Longitudes of* 25.8–49..7
- 10. **Gong,** Y.; Li, G. X.; Mao, R. Q.; Henkel, C.; Menten, K. M.; Fang, M.; Wang, M.; Sun, J. X., 2018, A&A, 620, A62, *The Serpens filament at the onset of slightly supercritical collapse*
- 9. Henkel, C.; Mühle S.; Bendo, G.; Józsa, G. I. G.; Gong, Y.; Viti, S.; Aalto, S.; Combes, F.; García-Burillo, S; Hunt, L. K.; Mangum, J.; Martín, S.; Muller, S.; Ott, J.; van der Werf, P.; Malawi, A. A.; Ismail, H.; Alkhuja, E.; Asiri, H. M.; Aladro, R.; Alves, F.; Ao, Y.; Baan, W. A.; Costagliola, F.; Fuller, G.; Greene, J.; Impellizzeri, C. M. V.; Kamali, F.; Klessen, R. S.; Mauersberger, R.; Tang, X. D.; Tristram, K.; Wang, M.; Zhang, J. S. 2018, A&A, 615, A155, Molecular line emission in NGC 4945, imaged with ALMA
- 8. Tang, X. D.; Henkel, C.; Menten, K. M.; Wyrowski, F.; Brinkmann, N.; Zheng, X. W.; Gong, Y.; Lin, Y. X.; Esimbek, J.; Zhou, J. J.; Yuan, Y.; Li, D. L.; He, Y. X., 2018, A&A, 609, A16, Kinetic temperature of massive star-forming molecular clumps measured with formaldehyde. III. The Orion molecular cloud 1
- 7. Su, Yang; Zhou, Xin; Yang, Ji; Chen, Yang; Chen, Xuepeng; Gong, Yan; Zhang, Shaobo, 2017, ApJ, 845, 48, "Is HESS J1912+101 associated with an old Supernova Remnant?"
- 6. Gong, Y.; Henkel, C.; J. Ott; K. M. Menten; M. R. Morris; D. Keller; M. J. Claussen; M. Grasshoff; R. Q. Mao, 2017, ApJ, 843, 54, "SiS in the circumstellar envelope of IRC +10216: maser and quasi-thermal emission"
- 5. Gong, Yan; Fang, Min; Mao, Ruiqing; Zhang, Shaobo; Wang, Yuan; Su, Yang; Chen, Xuepeng; Yang, Ji; Wang, Hongchi; Lu, Dengrong, 2017, ApJL, 835, L14, "L1188: a promising candidate of cloud-cloud collision triggering the formation of the low- and intermediate-mass stars"
- 4. Gong, Y.; Mao, R. Q.; Fang, M.; Zhang, S. B.; Su, Y.; Yang, J.; Jiang, Z. B.; Xu, Y.; Wang, M.; Wang, Y.; Lu, D. R.; Sun, J. X., 2016, A&A, 588, A104, "Molecular clouds and star formation toward the Galactic plane within $216.25^{\circ} \le l \le 218.75^{\circ}$ and $0.75^{\circ} \le b \le 1.25^{\circ}$ "
- 3. Zhang, C. P.; Li, G. X.; Wyrowski, F.; Wang, J. J.; Yuan, J. H.; Xu, J. L.; Gong, Y.; Yeh, Cosmos C.; Menten, K. M., 2016, A&A, 585, A117, "N131: A dust bubble born from the disruption of a gas filament"
- 2. <u>Gong, Y.</u>; Henkel, C.; Thorwirth, S.; Spezzano, S.; Menten, K. M.; Walmsley, C. M.; Wyrowski, F.; Mao, R. Q.; Klein, B, 2015, A&A, 581, A48, "A 1.3 cm line survey toward Orion KL"
- 1. <u>Gong, Y.</u>; Henkel, C.; Spezzano, S.; Thorwirth, S.; Menten, K. M.; Wyrowski, F.; Mao, R. Q.; Klein, B, 2015, A&A, 574, A56, "*A 1.3 cm line survey toward IRC* +10216"

PROCEEDINGS

- 2. <u>Gong, Y.</u>, Mao, R. Q.; Henkel, C.; Urquhart, J.; Wang, Y.; Zhang, Z. Y.; Wyrowski, F., 2013b, in Protostars and Planets VI Posters, 11, "Triggered Star Formation at the End of the Galactic Bar?"
- 1. <u>Gong, Y.</u>, Mao, R., Fang, M., Sun, J., & Lu, D. 2013a, in IAU Symposium, Vol. 292, IAU Symposium, ed. T. Wong & J. Ott, 43–43, "*Molecular gas around infrared dust bubbles*"

Honors and Awards

| 2011-2012 | Merit Student, University of Chinese Academy of Sciences |
|-----------|---|
| 2012-2015 | MPG-CAS Joint Doctoral Promotion Program |
| 2016 | The Zhu-Li Yuehua outstanding doctoral award of Chinese Academy of Sciences |
| 2017 | Excellent Doctoral Dissertation of Chinese Academy of Sciences |

Refereeing Duties

• since 2019, Publications of the Astronomical Society of Japan

Presentations

- 06/2019: the CASSACA & Calan star formation joint meeting, CASSACA, Santiago, (talk) "L1188: a tangoing molecule cloud complex"
- 06/2018: Star and Planet Formation Seminar, Garching, ESO, (talk) "The Serpens filament: at the onset of slightly supercritical collapse"
- 11/2016: The Chinese Annual Astronomy/Astrophysics Meeting, Wuhan, China, (talk) "Star formation triggered by a collision of molecular clouds in L1188"
- 04/2016: JCMT PI Science, Mitaka, Japan, (talk) "Studying the thermal state of dense gas with JCMT"
- 08/2015: Zhangheng academic seminar, Delingha, (talk) "Molecular clouds and star formation toward the Galactic plane within $216.25^{\circ} \le l \le 218.75^{\circ}$ and $0.75^{\circ} \le b \le 1.25^{\circ}$ "
- 08/2015: Scientific talk at XAO, Urumqi, (talk) "A 1.3 cm line survey toward Orion KL"
- 08/2014: MPIFR group meeting, Bonn, (talk) "A 1.3 cm line survey toward IRC +10216"
- 07/2013: Protostars & Planets VI, Heidelberg, (poster) "Triggered Star Formation at the End of the Galactic Bar?"
- 08/2012: The 28th IAU, Beijing, (poster) "Molecular gas around infrared dust bubbles"

Skills of Note

- Advanced: GILDAS, IDL, PYTHON
- Experienced: CASA, DS9, LATEX, KARMA, MONTAGE, HTML, vi, Emacs, NOD3
- Operating systems: Linux, Mac OS, Windows
- Observing experience: IRAM-30 m (>100 hours, on site+remote); PMO-13.7 m (>100 hours, on site); Effelsberg-100 m (>100 hours, on site+remote); APEX (>100 hours, four weeks, on site); Onsala-20 m (a week, onsite); SMT-10 m (a week, remote)

 \bullet Speaking languages: Chinese (mother tongue), English (fluent), and German (A1)

Professional References

Prof. Dr. Karl M. Menten

Director of Dept. Millimeter and Submillimeter Astronomy Max-Planck Institut für Radioastronomie Auf dem Hügel 69 D-53121 Bonn

Phone: (0049) 228 525 471 kmenten@mpifr-bonn.mpg.de

chenkel@mpifr-bonn.mpg.de

Dr. Christian Henkel

Staff of Dept. Millimeter and Submillimeter Astronomy
Max-Planck Institut für Radioastronomie
Auf dem Hügel 69
D-53121 Bonn
Phone: (0049) 228 525 305

Prof. Dr. Rui-qing Mao

Deputy director of Purple Mountain Observatory Purple Mountain Observatory, CAS 2 West Beijing Road Nanjing 210008, China Phone: (0086) 25 8333 2018 rqmao@pmo.ac.cn