YAN GONG

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I am an astronomer working at Purple Mountain Observatory and Max-Planck-Institut für Radioastronomie.

Updated on October 25, 2024

RESEARCH INTERESTS

- Molecular clouds and star formation
- Astrochemistry
- Circumstellar envelopes of late-type stars
- Astronomical masers

EDUCATION

Purple Mountain Observatory
 Ph.D in Astrophysics
 Thesis: A search for triggered star formation and a 1.3 cm spectral line survey
 Advisors: Prof. Dr. Rui-qing Mao & Dr. Christian Henkel

 Central China Normal University
 B.Sc. in physics

EMPLOYMENT

Purple Mountain Observatory	2024.01-present
Guest scientist	
Max-Planck-Institut für Radioastronomie	2024.01-present
Guest scientist	
Max-Planck-Institut für Radioastronomie	2021.09-2023.12
Scientific Staff	
Max-Planck-Institut für Radioastronomie	2017.09-2021.09
Postdoc	
Purple Mountain Observatory	2016.06-2017.08
Research assistant	

HONOR AND AWARDS

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

REFEREEING DUTIES

PASJ, MNRAS, RAA, ALMA, FAST

SKILLS OF NOTE

Software/Language GILDAS, python, IDL, CASA, MIRIAD (basic), html/css (basic), markdown, NOD3, DS9,

LATEX, KARMA, MONTAGE, vi, emacs

Operating systems Linux, Mac OS, Windows

Observing experience IRAM-30 m (>1000 hours, on site+remote; PI: 262 hours); PMO-13.7 m (>800 hours,

on site/service); Effelsberg-100 m (>2000 hours, on site+remote; PI: >100 hours); APEX (>300 hours, four weeks, on site+remote; PI: 398 hours); Onsala-20 m (a

1

week, onsite); SMT-10 m (a week, remote), ALMA (17.2 hours), ACA (\sim 240 hours),

VLA (>100 hours; PI: 15 hours), SMA (>50 hours; PI: 27 hours)

Speaking language Chinese (mother tongue), English (fluent), and German (A1)

PROFESSIONAL REFERENCES

Prof. Dr. Karl M. Menten (Max-Planck-Institut für Radioastronomie)

Director of Dept. Millimeter and Submillimeter Astronomy

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Prof. Dr. Rui-qing Mao (Purple Mountain Observatory)

Deputy director of Purple Mountain Observatory

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Dr. Christian Henkel (Max-Planck-Institut für Radioastronomie)

Staff of Dept. Millimeter and Submillimeter Astronomy

E-mail: chenkel@mpifr-bonn.mpg.de

Dr. Wolfgang Reich (Max-Planck-Institut für Radioastronomie)

Former station manager of the Effelsberg 100m telescope

E-mail: wreich@mpifr-bonn.mpg.de

PRESENTATIONS

- 2024.10 [Contributed talk] The Eleventh Interstellar Physics and Chemistry workshop, Lishui, China, "Tracing Molecular Clouds from Pristine to Extreme: Insights from HCNH+ observations"
- 2024.08 [invited talk] QTT workshop, XAO, Urumqi, China, "Studying ISM with QTT"
- 2024.04 [invited talk] Martes talk #42, Nanjing University, Nanjing, China, "Decoding interstellar and circumstellar environments with molecular tools"
- 2023.08 [invited talk], Shanghai Astronomical Observatory, Shanghai, China, "Recent progress on the GLOSTAR survey"
- 2023.07 [invited talk], Zhejiang lab, Hangzhou, China, "Decoding interstellar and circumstellar environments with molecular tools"
- 2023.07 [invited talk], Anhui Normal University, Wuhu, China, "Recent progress on the GLOSTAR survey"
- 2023.07 [invited talk], PMO Youth Forum, Purple Mountain Observatory, Nanjing, China, "Recent progress on the GLOSTAR survey"
- 2021.06 [e-poster], EAS2021, "Physical and chemical structure of the Serpens filament: fast formation and gravity-driven accretion"
- 2020.11 [invited-talk (on-line)] Guangzhou University, China, "The Serpens filament as a key to the initial conditions of filament evolution"
- 2020.02 [contributed talk] APEX2020, Schloss Ringberg, Germany, "The Serpens filament as a key to the initial conditions of filament evolution"
- 2019.06 [invited talk] the CASSACA & Calan star formation joint meeting, CASSACA, Santiago, Chile, "L1188: a tangoing molecule cloud complex"
- 2018.06 [invited talk] Star and Planet Formation Seminar, ESO, Garching, Germany, "The Serpens filament: at the onset of slightly supercritical collapse"
- 2016.11 [contributed talk] The Chinese Annual Astronomy/Astrophysics Meeting, Wuhan, China, "Star formation triggered by a collision of molecular clouds in L1188"
- 2016.04 [contributed talk] JCMT PI Science, Mitaka, Japan, "Studying the thermal state of dense gas with JCMT"
- 2015.08 [contributed talk] Zhangheng academic seminar, Delingha, China, "Molecular clouds and star formation toward the Galactic plane within $216.25^{\circ} \le l \le 218.75^{\circ}$ and $0.75^{\circ} \le b \le 1.25^{\circ}$ "
- 2015.07 [invited talk] Scientific talk at XAO, Urumqi, China, "A 1.3 cm line survey toward Orion KL"
- 2015.07 [contributed talk] MPIFR group meeting, Bonn, Germany, "A 1.3 cm line survey toward IRC +10216"
- 2013.07 [poster] Protostars & Planets VI,, Heidelberg, Germnay, "Triggered Star Formation at the End of the Galactic Bar?"
- 2012.08 [poster] The 28th IAU, Beijing, China, "Molecular gas around infrared dust bubbles"

REFEREED PUBLICATIONS

A full list via ADS

63. Dynamic Massive Star Formation: Radio Flux Variability in Regions

Yang, A. Y.; Thompson, M. A.; Urquhart, J. S.; Brunthaler, A.; Menten, K. M.; **Gong, Yan**; Tsai, Chao-Wei; Patel, A. L.; Li, D.; Cotton, W. D. 2024, A&A, accepted

62. Nitrogen Abundance Distribution in the inner Milky Way

Pineda, Jorge L.; Horiuchi, Shinji; Anderson, L. D.; Luisi, Matteo; Langer, William D.; Goldsmith, Paul F.; Kuiper, Thomas B. H.; Fischer, Christian; **Gong, Yan**; Brunthaler, Andreas; Rugel, Michael; Menten, Karl M., 2024, ApJ, 932, 89

61. A global view on star formation: The GLOSTAR Galactic plane survey. XI. Radio source catalog IV: $2^{\circ} < l < 28^{\circ}$, $36^{\circ} < l < 60^{\circ}$ and $|b| < 1^{\circ}$ A&A cover page

Medina, S. -N. X.; Dzib, S. A.; Urquhart, J. S.; Yang, A. Y. search by orcid; Brunthaler, A.; Menten, K. M.; Wyrowski, F.; Cotton, W. D.; Cheema, A.; Dokara, R.; **Gong, Y.**; Khan, S.; Nguyen, H.; Ortiz-Leon, G. N.; Rugel, M. R.; Veena, V. S.; Beuther, H.; Csengeri, T.; Pandian, J. D.; Roy, N., 2024, A&A, 689, A196

60. Hyperfine structure of the methanol molecule as traced by Class I methanol masers

Agafonova, I. I.; Bayandina, O. S.; **Gong, Y.**; Henkel, C.; Kim, Kee-Tae; Kozlov, M. G.; Lankhaar, B.; Levshakov, S. A.; Menten, K. M.; Ubachs, W.; Val'tts, I. E.; Yang, W., 2024, MNRAS, 533, 1714

59. A global view on star formation: The GLOSTAR Galactic plane survey X. Galactic HII region catalog using radio recombination lines

Khan, S.; Rugel, M. R.; Brunthaler, A.; Menten, K. M.; Wyrowski, F.; Urquhart, J. S.; **Gong, Y.**; Yang, A. Y.; Nguyen, H.; Dokara, R.; Dzib, S. A.; Medina, S.-N. X.; Ortiz-León, G. N.; Pandian, J. D.; Beuther, H.; Veena, V. S.; Neupane, S.; Cheema, A.; Reich, W.; Roy, N., 2024, A&A, 689, A81

58. Spatial Distribution of C₄H and c-C₂H₂ in Cold Molecular Cores

Liu, Yijia; Wang, Junzhi; Liu, Shu; Tang, Ningyu; **Gong, Yan**; Li, Yuqiang; Li, Juan; Luo, Rui; Xu, Yani, 2024, ApJ, 969, 33

57. Kinetic temperature of massive star-forming molecular clumps measured with formaldehyde V. The massive filament DR21

Zhao, X.; Tang, X. D.; Henkel, C.; **Gong, Y.**; Lin, Y.; Li, D. L.; He, Y. X.; Ao, Y. P.; Lu, X.; Liu, T.; Sun, Y.; Wang, K.; Chen, X. P.; Esimbek, J.; Zhou, J. J.; Wu, J. W.; Qiu, J. J.; Zheng, X. W.; Li, J. S.; Luo, C. S.; Zhao, Q. 2024, A&A, accepted

56. First detection of CF⁺ in the Large Magellanic Cloud

Gong, Yan, Menten Karl M., Jacob Arshia M., Christian Henkel, Chen C.-H. Rosie, 2024, A&A, 687, A29

55. Discovery of widespread non-metastable ammonia masers in the Milky Way

Yan, Y. T.; Henkel, C.; Menten, K. M.; Wilson, T. L.; Wootten, A.; **Gong, Y.**; Wyrowski, F.; Yang, W.; Brunthaler, A.; Kraus, A.; Winkel, B., 2024, A&A, 686, A205

54. Magnetically Aligned Striations in the L914 Filamentary Cloud Sun, Li; Chen, Xuepeng; Fang, Min; Zhang, Shaobo; **Gong, Yan**; Feng, Jiancheng; Li, Xuefu; Yan, Qing-Zeng; Yang, Ji, 2024, AJ, 167, 176

53. Massive clumps in W43-main: Structure formation in an extensively shocked molecular cloud

Lin, Yuxin; Wyrowski, Friedrich; Liu, Hauyu Baobab; **Gong, Yan**; Sipilä, Olli; Izquierdo, Andrés F.; Csengeri, Timea; Ginsburg, Adam; Li, Guang-Xing; Spezzano, Silvia; Pineda, Jaime E.; Leurini, Silvia; Caselli, Paola; Menten, Karl M., 2024, A&A, 685, 101

52. The first Ka-band (26.1-35 GHz) blind line survey towards Orion KL

Liu, Xunchuan; Liu, Tie; Shen, Zhiqiang; Qin, Sheng-Li; Luo, Qiuyi; **Gong, Yan**; Cheng, Yu; Henkel, Christian; Gu, Qilao; Zhu, Fengyao; Zhang, Tianwei; Zhao, Rongbing; Wu, Yajun; Li, Bin; Li, Juan; Zhao, Zhang; Wang, Jinqing; Zhong, Weiye; Liu, Qinghui; Xia, Bo; Fu, Li; Yan, Zhen; Zhang, Chao; Wang, Lingling; Ye, Qian; Yang, Aiyuan; Xu, Fengwei; Zhang, Chao; Dutta, Somnath; Li, Shanghuo; Liu, Meizhu; Yang, Dongting; Li, Chuanshou; Chen, Li 2024, ApJS, 271, 3

51. Maser Investigation toward Off-Plane Stars (MIOPS): detection of SiO masers in the Galactic thick disk and

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- Yang, Wenjin; Wu, Yuanwei; **Gong, Yan**; Mauron, Nicolas; Zhang, Bo; Menten, Karl M.; Mai, Xiaofeng; Liu, Dejian; Li, Juan; Li, Jingjing, 2024, ApJ, 961, 190
- 50. A global view on star formation: The GLOSTAR Galactic plane survey. IX. Radio Source Catalog III: $2^{\circ} < l < 28^{\circ}, 36^{\circ} < l < 40^{\circ}, 56^{\circ} < l < 60^{\circ}$ and $|b| < 1^{\circ}$, VLA B-configuration
- Yang, A. Y.; Dzib, S. A.; Urquhart, J. S.; Brunthaler, A.; Medina, S.-N. X.; Menten, K. M.; Wyrowski, F.; Ortiz-León, G. N.; Cotton, W. D.; **Gong, Y.**; Dokara, R.; Rugel, M. R.; Beuther, H.; Pandian, J. D.; Csengeri, T.; Veena, V. S.; Roy, N.; Nguyen, H.; Winkel, B.; Ott, J.; Carrasco-Gonzalez, C.; Khan, S.; Cheema, A., 2023, A&A, 680, A92
- 49. Sulfur Isotope Ratios in the Large Magellanic Cloud
- **Gong, Y.**; Henkel, C.; Menten, K. M.; R. Chen, C.-H.; Zhang, Z. Y.; Yan, Y. T.; Weiss, A.; Langer, N.; Wang, J. Z.; Mao, R. Q.; Tang, X. D.; Yang, W.; Ao, Y. P.; Wang, M., 2023, A&A, 679, L6
- 48. Protonated hydrogen cyanide as a tracer of pristine molecular gas
- **Gong, Y.**; Du, F. J.; Henkel, C.; Jacob, A. M.; Belloche, A.; Wang, J. Z.; Menten, K. M.; Yang, W.; Quan, D. H.; Bop, C. T.; Ortiz-León, G. N.; Tang, X. D.; Rugel, M. R.; Liu, S., 2023, A&A, 679, A39
- 47. A global view on star formation: The GLOSTAR Galactic plane survey VIII. Formaldehyde absorption in Cygnus X
- Gong, Y.; Ortiz-León, G. N.; Rugel, M. R.; Menten, K. M.; Brunthaler, A.; Wyrowski, F.; Henkel, C.; Beuther, H.; Dzib, S. A.; Urquhart, J. S.; Yang, A. Y.; Pandian, J. D.; Dokara, R.; Veena, V. S.; Nguyen, H.; Medina, S.-N. X.; Cotton, W. D.; Reich, W.; Winkel, B.; Müller, P.; Skretas, I.; Csengeri, T.; Khan, S.; Cheema, A., 2023, A&A, 678, A130
- **46.** High-resolution APEX/LAsMA ¹²CO and ¹³CO (3-2) observation of the G333 giant molecular cloud complex : I. Evidence for gravitational acceleration in hub-filament systems
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- 45. ATLASGAL: 3-mm class I methanol masers in high-mass star formation regions
- Yang, W.; **Gong, Y.**; Menten, K. M.; Urquhart, J. S.; Henkel, C.; Wyrowski, F.; Csengeri, T.; Ellingsen, S. P.; Bemis, A. R.; Jang, J.; 2023, A&A, 675, A112
- 44. The Effelsberg survey of FU Orionis and EX Lupi objects II. H₂O maser observations
- Szabó, Zs. M.; **Gong, Y.**; Yang, W.; Menten, K. M.; Bayandina, O. S.; Cyganowski, C. J.; Kóspál, Á.; Ábrahám, P.; Belloche, A.; Wyrowski., F.; 2023, A&A, 674, A202
- 43. The distance to the Serpens South Cluster from H₂O masers
- Gisela N. Ortiz-León; Sergio A. Dzib; Laurent Loinard; **Yan Gong**; Thushara Pillai; Adele Plunkett; 2023, A&A, 673, L1
- **42.** The Effelsberg survey of FU Orionis and EX Lupi objects I. Host environments of FUors/EXors traced by NH₃
- Szabó, Zs. M.; Gong, Y.; Menten, K. M.; Yang, W.; Cyganowski, C. J.; Kóspál, Á.; Ábrahám, P.; Belloche, A.; Wyrowski., F.; 2023, A&A, 672, A158
- 41. Direct measurements of carbon and sulfur isotope ratios in the Milky Way
- Yan, Y. T.; Henkel, C.; Kobayashi, C.; Menten, K. M.; **Gong, Y.**; Zhang, J. S.; Yu, H. Z.; Yang, K.; Xie, J. J.; Wang, Y. X.; 2022, A&A, 670, A98
- 40. A global view on star formation: The GLOSTAR Galactic plane survey. VII. Supernova remnants in the Galactic longitude range $28^{\circ} < l < 36^{\circ}$
- Dokara, R.; **Gong, Y.**; Reich, W.; Rugel, M.; Brunthaler, A.; Menten, K.; Cotton, W.; Dzib, S.; Khan, S.; Medina, S.; Nguyen, H.; Ortiz-León, G.; Urquhart, J.; Wyrowski, F.; Yang, A.; Anderson, L. D.; Beuther, H.; Csengeri, T.; Müller, P.; Ott, J.; Pandian, J. D.; Roy, N.; 2022, A&A, 671, A145
- 39. A global view on star formation: The GLOSTAR Galactic plane survey. VI. Radio Source Catalog II: 28 $^\circ$ < l < 36 $^\circ$ and |b| < 1 $^\circ$, VLA B-configuration
- Dzib, S. A.; Yang, A. Y.; Urquhart, J. S.; Medina, S. -N. X.; Brunthaler, A.; Menten, K. M.; Wyrowski, F.; Cotton, W. D.; Dokara, R.; Ortiz-León, G. N.; Rugel, M. R.; Nguyen, H.; Gong, Y.; Chakraborty, A.; Beuther,

- H.; Billington, S. J.; Carrasco-Gonzalez, C.; Csengeri, T.; Hofner, P.; Ott, J.; Pandian, J. D.; Roy, N.; Yanza, V.; 2022, A&A, 670, A9
- 38. Discovery of non-metastable ammonia masers in Sagittarius B2
- Yan, Y. T.; Henkel, C.; Menten, K. M.; **Gong, Y.**; Nguyen, H.; Ott, J.; Ginsburg, A.; Wilson, T. L.; Brunthaler, A.; Belloche, A.; Zhang, J. S.; Budaiev, N.; Jeff, D.; 2022, A&A, 666, L15
- 37. A Global View on Star Formation: The GLOSTAR Galactic Plane Survey V. 6.7 GHz Methanol Maser Catalogue Nguyen, H.; Rugel, M. R.; Murugeshan, C.; Menten, K. M.; Brunthaler, A.; Urquhart, J. S.; Dokara, R.; Dzib, S. A.; Gong, Y.; Khan, S.; Medina, S-N. X.; Ortiz-León, G. N.; Reich, W.; Wyrowski, F.; Yang, A. Y.; Beuther, H.; Cotton, W. D.; Pandian, J. D.; 2022, A&A, 666, A59
- 36. Water Masers as an Early Tracer of Star Formation

Ladeyschikov, Dmitry A.; **Gong, Yan**; Sobolev, Andrey M.; Menten, Karl M.; Urquhart, James S.; Breen, Shari L.; Shakhvorostova, Nadezhda N.; Bayandina, Olga S.; Tsivilev, Alexander P.; 2022, ApJS, 261, 14

35. And then they were two: detection of non-thermal radio emission from the bow shocks of two runaway stars

Moutzouri, M.; Mackey, J.; Carrasco González, C.; **Gong, Y.**; Brose, R.; Zargaryan, D.; Toalá, J. A.; Menten, K. M.; Gvaramadze, V. V.; Rugel, M. R.; 2022, A&A, 663, A80

- 34. Vibrationally excited HCN transitions in circumstellar envelopes of carbon-rich AGB stars Jeste, M.; Gong, Y.; Wong, K. T.; Menten, K. M.; Kamiński, T.; Wyrowski, F.; 2022, A&A, 666, A69
- 33. Widespread subsonic turbulence in Ophiuchus North 1

Gong, Y.; Liu, S.; Wang, J. Z.; Zhu, W. S.; Li, G. X.; Yang, W. J.; Sun, J. X.; 2022, A&A, 663, A82

32. Redshifted methanol absorption tracing infall motions of high-mass star formation regions

Yang, W. J.; Menten, K. M.; Yang, A. Y.; Wyrowski, F.; **Gong, Y.**; Ellingsen, S. P.; Henkel, C.; Chen, X.; Xu, Y.; 2022, A&A, 658, A192

- 31. Discovery of ammonia (9,6) masers in two high-mass star-forming regions
- Yan, Y. T.; Henkel, C.; Menten, K. M.; **Gong, Y.**; Ott, J.; Wilson, T. L.; Wootten, A.; Brunthaler, A.; Zhang, J. S.; Chen, J. L.; Yang, K.; 2022, A&A, 659, A5
- **30.** The Nearby Evolved Stars Survey II: Constructing a volume-limited sample and first results from the James Clerk Maxwell Telescope

Scicluna, P. + 90 authors including (Gong, Y.); 2022, MNRAS, 512, 1091

- 29. HI-H₂ transition: Exploring the role of the magnetic field. A case study toward the Ursa Major cirrus Skalidis, R.; Tassis, K.; Panopoulou, G. V.; Pineda, J. L.; **Gong, Y.**; Mandarakas, N.; Blinov, D.; Kiehlmann, S.; Kypriotakis, J. A.; 2022, A&A, 665, A77
- 28. Kinetic temperature of massive star-forming molecular clumps measured with formaldehyde IV. The ALMA view of N113 and N159W in the LMC

Tang, X. D.; Henkel, C.; Menten, K. M.; **Gong, Y.**; Chen, C.-H. R.; Li, D. L.; Lee, M.-Y.; Mangum, J. G.; Ao, Y. P.; Mühle, S.; Aalto, S.; García-Burillo, S.; Martín, S.; Viti, S.; Muller, S.; Costagliola, F.; Asiri, H.; Levshakov, S. A.; Spaans, M.; Ott, J. Impellizzeri, C. M. V.; Fukui, Y.; He, Y. X.; Esimbek, J.; Zhou, J. J.; Zheng, X. W.; Zhao, X.; Li, J. S.; 2021, A&A, 665, A12

27. A global view on star formation: The GLOSTAR Galactic Plane Survey. I. Overview and first results for the Galactic longitude range $28^{\circ} < l < 36^{\circ}$ A&A/MPIFR/NRAO press release

Brunthaler, A.; Menten, K. M.; Dzib, S. A.; Cotton, W. D.; Wyrowski, F.; Dokara, R.; **Gong, Y.**; Medina, S-N. X.; Müller, P.; Nguyen, H.; Ortiz-León, G. N.; Reich, W.; Rugel, M. R.; Urquhart, J. S.; Winkel, B.; Yang, A. Y.; Beuther, H.; Billington, S.; Carrasco-Gonzales, C.; Csengeri, T. Murugeshan, C.; Pandian, J. D.; Roy, N.; 2021, A&A, 651, A85

- 26. Discovery of 22 GHz Water Masers in the Serpens South Region
- Ortiz-León, Gisela N.; Plunkett, Adele; Loinard, Laurent; Dzib, Sergio A.; Rodríguez-Garza, Carolina B.; Pillai, Thushara; **Gong, Yan**; Brunthaler, Andreas; 2021, AJ, 162, 68
- 25. A Global View on Star Formation: The GLOSTAR Galactic Plane Survey III. 6.7 GHz Methanol maser survey in Cygnus X A&A/MPIFR/NRAO press release

Ortiz-León, Gisela N.; Menten, Karl M.; Brunthaler, Andreas; Csengeri, Timea; Urquhart, James S.; Wyrowski, Friedrich; **Gong, Yan**; Rugel, Michael R.; Dzib, Sergio A.; Yang, Aiyuan; Nguyen, Hans; Cotton, William D.; Medina, Sac Nicte X.; Dokara, Rohit; Koenig, Carsten; Beuther, Henrik; Pandian, Jagadheep D.; Reich, Wolfgang; Roy, Nirupam; 2021, A&A, 651, A87

24. A global view on star formation: The GLOSTAR Galactic plane survey IV. Radio continuum detections of young stellar objects in the Galactic Centre region A&A/MPIFR/NRAO press release

Nguyen, H.; Rugel, M. R.; Menten, K. M.; Brunthaler, A.; Dzib, S. A.; Yang, A. Y.; Kauffmann, J.; Pillai, T.; Nandakumar, G.; Schultheis, M.; Urquhart, J. S.; Dokara, R.; **Gong, Y.**; Medina, S-N. X.; Ortiz-León, G. N.; Reich, W.; Wyrowski, F.; Beuther, H.; Cotton, W. D.; Csengeri, T. Pandian, J. D.; Roy, N.; 2021, A&A, 651, A88

23. A global view on star formation: The GLOSTAR Galactic plane survey. II. Supernova Remnants in the first quadrant of the Milky Way A&A/MPIFR/NRAO press release

Dokara, Rohit; Brunthaler, A.; Menten, K. M.; Dzib, S. A.; Reich, W.; Cotton, W. D.; Anderson, L. D.; Chen, C. -H. R.; **Gong, Y.**; Medina, S. -N. X.; Ortiz-León, G. N.; Rugel, M.; Urquhart, J. S.; Wyrowski, F.; Yang, A. Y.; Beuther, H.; Billington, S. J.; Csengeri, T.; Carrasco-González, C.; Roy, N.; 2021, A&A, 651, A86

- 22. Dense gas in local galaxies revealed by multiple tracers
- Li, Fei; Wang, Junzhi; Gao, Feng; Liu, Shu; Zhang, Zhi-Yu; Li, Shanghuo; **Gong, Yan**; Li, Juan; Shi, Yong; 2021, MNRAS, 503, 4508
- 21. Hunting for the elusive methylene radical A&A highlight

Jacob, A. M.; Menten, K. M.; **Gong, Y.**; Bergman, P.; Tiwari, M.; Bruenken, S.; Olofsson, A.O.H.; 2021, A&A, 647, A42

- 20. Physical and chemical structure of the Serpens filament: fast formation and gravity-driven accretion Gong, Y.; Belloche, A.; Du, F. J.; Menten, K. M.; Henkel, C.; Li, G. X.; Wyrowski, F.; Mao, R. Q.; 2021, A&A, 646, A170
- 19. Evidence for dense gas heated by the explosion in Orion KL
- Li, Dalei; Tang, Xindi; Henkel, Christian; Menten, Karl M.; Wyrowski, Friedrich; **Gong, Yan**; Wu, Gang; He, Yuxin; Esimbek, Jarken; Zhou, Jianjun, 2020, ApJ, 901, 62
- 18. New maser species tracing spiral-arm accretion flows in a high-mass young stellar object

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Sanz-Novo, M.; Belloche, A.; Alonso, J. L.; Kolesniková, L.; Garrod, R. T.; Mata, S.; Müller, H. S. P.; Menten, K. M., Gong, Y.; 2020, A&A, 639, A135

- 16. Local molecular gas toward the Aquila Rift region
- Su, Y.; Yang, J.; Yan, Q. Z., **Gong, Y.**; Chen, Z. W.; Zhang, S. B., Sun, Y., Zhang, M. M., Chen, X. P., Zhou, X., Wang, M., Wang, H. C., Xu, Y., Jiang, Z. B., 2020, ApJ, 893, 91
- 15. 36 GHz methanol lines from nearby galaxies: maser or quasi-thermal emission?

Humire, P.; Henkel, C.; **Gong, Y.**; 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., 2020, A&A, 633, A106

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