

## Gao Yu

Position: senior researcher

Period covered: during 2010 for this summary



### I. Scientific Work

1. Natale, G.; Tuffs, R. J.; Xu, C. K.; Popescu, C.; Fischera, J.; Lisenfeld, U.; Lu, N.; Appleton, P.; Dopita, M.; Duc, P. -A.; **Gao, Y.**; Reach, W.; Sulentic, J.; Yun, M.

Dust emission and star formation in Stephan's Quintet  
eprint arXiv:1010.1227, accepted for publication in the Astrophysical Journal

2. Leech, J.; Isaak, K. G.; Papadopoulos, P. P.; **Gao, Y.**; Davis, G. R.  
A CO(3-2) survey of a merging sequence of luminous infrared galaxies  
2010MNRAS.406.1364L

3. González-Alfonso, E.; Fischer, J.; Isaak, K.; Rykala, A.; Savini, G.; Spaans, M.; van der Werf, P.; Meijerink, R.; Israel, F. P.; Loenen, A. F.; Vlahakis, C.; Smith, H. A.; Charmandaris, V.; Aalto, S.; Henkel, C.; Weiß, A.; Walter, F.; Greve, T. R.; Martín-Pintado, J.; Naylor, D. A.; Spinoglio, L.; Veilleux, S.; Harris, A. I.; Armus, L.; Lord, S.; Mazzarella, J.; Xilouris, E. M.; Sanders, D. B.; Dasyra, K. M.; Wiedner, M. C.; Kramer, C.; Papadopoulos, P. P.; Stacey, G. J.; Evans, A. S.; **Gao, Y.**

Herschel observations of water vapour in Markarian 231 Authors:  
2010A&A...518L..43G

4. van der Werf, P. P.; Isaak, K. G.; Meijerink, R.; Spaans, M.; Rykala, A.; Fulton, T.; Loenen, A. F.; Walter, F.; Weiß, A.; Armus, L.; Fischer, J.; Israel, F. P.; Harris, A. I.; Veilleux, S.; Henkel, C.; Savini, G.; Lord, S.; Smith, H. A.; González-Alfonso, E.; Naylor, D.; Aalto, S.; Charmandaris, V.; Dasyra, K. M.; Evans, A.; **Gao, Y.**; Greve, T. R.; Güsten, R.; Kramer, C.; Martín-Pintado, J.; Mazzarella, J.; Papadopoulos, P. P.; Sanders, D. B.; Spinoglio, L.; Stacey, G.; Vlahakis, C.; Wiedner, M. C.; Xilouris, E. M.

Black hole accretion and star formation as drivers of gas excitation and chemistry in Markarian 231  
2010A&A...518L..42V

5. Natale, G.; Tuffs, R. J.; Fischera, J.; Lu, N.; Popescu, C. C.; Xu, C. K.; Appleton, P.; Boulanger, F.; Dopita, M.; Duc, P.; **Gao, Y.**; Ogle, P.; Pineau Des Forets, G.; Reach, W.; Sulentic, J.; Yun, M.

Dust Emission from Stephan's Quintet Authors:  
2010AIPC.1240...85N

6. Xu, C. Kevin; Domingue, D.; Cheng, Y.; Lu, N.; Huang, J.; **Gao, Y.**; Mazzarella, J. M.; Cutri, R.; Sun, W.; Surace, J.

Star Formation Enhancement in  $z=0$  Close Major Mergers --- Spitzer Observations of a K-Band Selected Sample  
2010AAS...21630703X

7. Xu, C. Kevin; Domingue, Donovan; Cheng, Yi-Wen; Lu, Nanyao; Huang, Jiasheng; **Gao, Yu**; Mazzarella, Joseph M.; Cutri, Roc; Sun, Wei-Hsin; Surace, Jason

Local Benchmarks for the Evolution of Major-merger Galaxies—Spitzer Observations of a K-band Selected Sample

2010ApJ...713..330X (arXiv:1002.3648)

8. Zhao, Yinghe; **Gao, Yu**; Gu, Qiusheng

Luminosity-Metallicity Relations for Blue Compact Dwarf Galaxies in the Optical and Near-infrared  
2010ApJ...710..663Z

9. Zhang, Hong-Xin; **Gao, Yu**; Kong, Xu  
Star formation histories within the Antennae galaxies (Arp244)  
2010MNRAS.401.1839Z

10. Sun, Yan; Gao, Yu  
Comparative study of the relationships between CO isotopic luminosities and infrared luminosity for the Galactic dense cores  
2010ScChG..53.1169S

11. Zhang, Hong-Xin; **Gao, Yu**; Kong, Xu  
SFHs Across the Merging Disks of Arp 244 - from FUV to MIR  
2010IAUS..262..454Z

12. Liu, Fan; **Gao, Yu**  
The Radio Continuum, Far-Infrared Emission, and Dense Molecular Gas in Galaxies  
2010ApJ...713..524L

13. Wang, Jing-Bo; **Gao, Yu**  
Chandra archival study of (U)LIRGs with a double nucleus: binary AGNs?  
2010RAA....10..309W

14. Zhang, Zhiyu; **Gao, Yu**; Wang, Junzhi  
CO observation of SNR IC 443  
2010ScChG..53.1357Z

## **II. Conferences and educational activities**

### *II a. Conferences and Other External Scientific Works*

Conferences :

1. The second Galileo - Xu Guangqi meeting, July 12-18, 2010, Ventimiglia and Nice
2. Infrared Emission, Interstellar Medium and Star Formation, Feb.22-24, 2010 German Max-Planck-Institute of Astronomy
3. From Stars to Galaxies: Connecting our understanding of star and galaxy formation, April, 4-14, 2010, Gainesville, Florida, USA
4. Second Chinese-German Workshop on Star and Planet Formation, July 25-31, 2010 German, Kiel, Germany
5. Challenges in Infrared Extragalactic Astrophysics II, 2010.9.26-2010.10.1, Crete, Greece

### *Other External Scientific Works*

1. Visit ESTEC, Netherlands during July 17th-22, 2010 invited by Dr. Kate Isaak
2. Visit Seoul National University, Korea during Aug. 6-15 invited by Dr. Myungshin Im
3. Visit IPAC, Caltech, USA during 28, Jan- 19, Feb., April, June, August, invited by Dr. C. Kevin Xu

### *II b. Work With Students*

1. Zhang, Hong-Xin; **Gao, Yu**; Kong, Xu  
Star formation histories within the Antennae galaxies (Arp244)  
2010MNRAS.401.1839Z

2. Sun, Yan; Gao, Yu  
Comparative study of the relationships between CO isotopic luminosities and infrared luminosity for the Galactic dense cores

2010ScChG..53.1169S

3. Zhang, Hong-Xin; **Gao, Yu**; Kong, Xu  
SFHs Across the Merging Disks of Arp 244 - from FUV to MIR  
2010IAUS..262..454Z

4. Liu, Fan; **Gao, Yu**  
The Radio Continuum, Far-Infrared Emission, and Dense Molecular Gas in Galaxies  
2010ApJ...713..524L

*II c. Diploma thesis supervision*

1. Wang, Jing-Bo; **Gao, Yu**  
Chandra archival study of (U)LIRGs with a double nucleus: binary AGNs?  
2010RAA....10..309W

2. Zhang, Zhiyu; **Gao, Yu**; Wang, Junzhi  
CO observation of SNR IC 443  
2010ScChG..53.1357Z

*II d. Other Teaching Duties*

1. Give the short lecture course in Nanjing U. in Oct.

*II e. Work With Postdocs*

1. Zhao, Yinghe; **Gao, Yu**; Gu, Qiusheng  
Luminosity-Metallicity Relations for Blue Compact Dwarf Galaxies in the Optical and Near-infrared  
2010ApJ...710..663Z

**III. Service activities**

1. Assoc. Editor/Ap&SS (2007-now), Reviewer/referee for, AJ, MNRAS, RAA

2. Talks/colloquia at Dark Center, Denmark; Seoul National Univ.; U. Sci. & Tech. of China, Nanjing U., as well as many invited talks at meetings/conferences.

3. Organized meeting as SOC or Co-chair of SOC

1). "Key Issues in high-redshift galaxy/black hole evolution in the ALMA/JWST Era", Hangzhou, May 29-June 4, 2010

Website: <http://sfig.pmo.ac.cn/hangzhou/>

2). "Galaxy evolution: Infrared to millimeter wavelength perspective", Guilin Oct. 25-29, 2010

Website: <http://202.121.53.133/guilin/>