

Department of Astronomy
University of Illinois
1002 W. Green St.
Urbana, IL 61801

+1 (217) 244-4207 (tel)
+1 (217) 244-7638 (fax)
wongt@astro.uiuc.edu
<http://mmwave.astro.uiuc.edu>

CURRICULUM VITAE OF TONY WONG

Personal

Born in Lawrence, Kansas, USA in 1973. US and Australian citizen.

Education

University of California, Berkeley (1994–2000)

Received M. A. in December 1996 in Astronomy.

Received Ph.D. in December 2000 in Astrophysics.

Thesis Title: Radial Gas Flows and Star Formation in Spiral Galaxies

Thesis Committee: L. Blitz (chair), C. F. McKee, C. H. Townes

Harvard University (1990–1994)

Received B. A. in June 1994, *summa cum laude*.

Fields of concentration: Physics and Astronomy and Astrophysics.

Phi Beta Kappa, inducted November 1993 (top 5% of class).

Employment

2006–present: *University of Illinois at Urbana-Champaign.* Assistant Professor of Astronomy (tenure-track). Member, Laboratory for Astronomical Imaging, a partner in the Combined Array for Research in Millimeter-wave Astronomy (CARMA).

2003–2006: *CSIRO Australia Telescope National Facility and University of New South Wales.* ARC-CSIRO Linkage Postdoctoral Fellow. ATNF 3mm Project Scientist. Development of on-the-fly (OTF) mapping mode at Mopra telescope. Multi-wavelength studies of star formation and the interstellar medium in the Large Magellanic Cloud. Imaging of dense gas in extragalactic starburst regions.

2001–2003: *CSIRO Australia Telescope National Facility.* Bolton Postdoctoral Fellow. Studies of the neutral interstellar medium in spiral galaxies, including the edge-on galaxy NGC 891. Testing of ATCA 3mm system and support for users. ATCA observations of molecular gas in selected targets, including evolved stars, massive star-forming regions, and nearby galaxies.

1996–2000: *University of California, Berkeley.* Research Assistant for UCB Radio Astronomy Laboratory, under direction of Prof. Leo Blitz. Observations of CO(1-0) emission in nearby galaxies, using the BIMA interferometer and NRAO 12m telescope. Modeling of CO and HI kinematics and comparison with star formation tracers. Team member, BIMA Survey of Nearby Galaxies (BIMA SONG), including development of data reduction pipelines.

1995–1996: *University of California, Berkeley.* Research Assistant for Prof. Don Backer. Dual-frequency pulsar timing using a Coherent Dispersion Removal Processor (CDRP) system attached to the 85-ft (26-m) radio telescope at NRAO Green Bank, WV. Analyzed pulsar glitches, timing noise, and variable interstellar dispersion and scattering.

1993–1994: *Harvard University.* “Neutral Hydrogen Holes in the Dwarf Galaxy DDO 47,” B.A. thesis completed May 1994 under the direction of Dr. Daniel Puche at the Center for Astrophysics. Compared 21-cm and optical observations of a dI galaxy to study the origin of widespread holes in the neutral gas.

Selected Publications

- Wong, T., Whiteoak, J. B., Ott, J., Chin, Y.-N., & Cunningham, M. R. 2006, "Synthesis Imaging of Dense Molecular Gas in the N113 HII Region of the Large Magellanic Cloud," *Astrophysical Journal*, 649, 224.
- Paladino, R., Murgia, M., Helfer, T. T., Wong, T., Ekers, R., Blitz, L., Gregorini, L., & Moscadelli, L. 2006, Thermal and Non-thermal Components of the Interstellar Medium at Sub-kiloparsec Scales in Galaxies," *Astronomy & Astrophysics*, 456, 847.
- Hughes, A., Wong, T., Ekers, R., Staveley-Smith, L., Filipovic, M., Maddison, S., Fukui, Y., & Mizuno, N. 2006, "A Multi-resolution Analysis of the Radio-FIR Correlation in the Large Magellanic Cloud," *Monthly Notices of the Royal Astronomical Society*, 370, 363.
- Bains, I., Wong, T., et al. 2006, "Molecular Line Mapping of the Giant Molecular Cloud Associated with RCW 106 - I. ^{13}CO ," *Monthly Notices of the Royal Astronomical Society*, 367, 1609.
- Murgia, M., Helfer, T. T., Ekers, R., Blitz, L., Moscadelli, L., Wong, T., & Paladino, R. 2005, "The Molecular Connection to the FIR-Radio Continuum Correlation in Galaxies," *Astronomy & Astrophysics*, 437, 389.
- Wong, T. & Thornley, M. D. 2004, "Molecular Gas & Star Formation in Nearby Galaxies," in *Star Formation at High Angular Resolution*, ed. M. G. Burton, R. Jayawardhana & T. L. Bourke (San Francisco: ASP), 119.
- Wong, T., Blitz, L., & Bosma, A. 2004, "A Search for Kinematic Evidence of Radial Gas Flows in Spiral Galaxies," *Astrophysical Journal*, 605, 183.
- Wong, T., Blitz, L., & van der Hulst, J. M. 2004, "Comparing the CO and HI Distributions in Nearby Spiral Galaxies at High Resolution," *Astrophysics & Space Science*, 289, 211.
- Wong, T., Schöier, F. L., Lindqvist, M., & Olofsson, H. 2004, "Australia Telescope Compact Array Imaging of Circumstellar HCN Line Emission from R Scl," *Astronomy & Astrophysics*, 413, 241.
- Wilner, D. J., Bourke, T. L., Wright, C. M., Jørgensen, J. K., van Dishoeck, E. F., & Wong, T. 2003, "Disks Around the Young Stars TW Hydrae and HD 100546 Imaged at 3.4 Millimeters with the Australia Telescope Compact Array", *Astrophysical Journal*, 596, 597.
- Helfer, T. T., Thornley, M. D., Regan, M. W., Wong, T., Sheth, K., Vogel, S. N., Blitz, L., & Bock, D. C.-J. 2003, "The BIMA Survey of Nearby Galaxies (BIMA SONG). II. The CO Data," *Astrophysical Journal Supplement Series*, 145, 259.
- Wong, T. 2002, "Dynamical Effects on Star Formation in Spiral Galaxies," in *Disks of Galaxies: Kinematics, Dynamics, and Perturbations*, eds. E. Athanassoula et al. (San Francisco: ASP), 315.
- Wong, T. & Melatos, A. 2002, "Millimetre Science With the Upgraded Australia Telescope," *Proc. Astron. Soc. Australia*, 19, 475.
- Wong, T. & Blitz, L. 2002, "The Relationship between Gas Content and Star Formation in Molecule-Rich Spiral Galaxies," *Astrophysical Journal*, 569, 157.
- Regan, M. W., Thornley, M. D., Helfer, T. T., Sheth, K., Wong, T., Vogel, S. N., Blitz, L., & Bock, D. C.-J. 2001, "The BIMA Survey of Nearby Galaxies. I. The Radial Distribution of CO Emission in Spiral Galaxies," *Astrophysical Journal*, 561, 218.
- Wong, T., Backer, D. C., & Lyne, A. G. 2001, "Observations of a Series of Six Recent Glitches in the Crab Pulsar," *Astrophysical Journal*, 548, 447.
- Wong, T. & Blitz, L. 2001, "Gas Flows and Star Formation in the Ringed Galaxy NGC 4736," *Astrophysics & Space Science*, 276, 659.
- Backer, D. C., Wong, T., & Valanju, J. 2000, "A Plasma Prism Model for an Anomalous Dispersion Event in the Crab Pulsar," *Astrophysical Journal*, 543, 740.
- Wong, T. & Blitz, L. 2000, "Non-Circular Gas Kinematics and Star Formation in the Ringed Galaxy NGC 4736," *Astrophysical Journal*, 540, 771.

Teaching Experience

UC Berkeley

Spring 1999: “Life and the Universe” (Astronomy 9), Course Instructor. An introductory course in astrobiology for undergraduates. Prepared syllabus, lectures, homework, exams, and written lecture notes. See <http://www.atnf.csiro.au/people/twong/ay9/>.

Fall 1996: Head Teaching Assistant (“GSI”) for “Introduction to General Astronomy” (Astronomy 10), taught by L. Blitz. See <http://www.atnf.csiro.au/people/twong/ay10b/>.

Spring 1995: Sole GSI for “Introduction to Astrophysics” (Astronomy 7), taught by J. Graham.

Fall 1994: GSI for “Introduction to General Astronomy” (Astronomy 10), taught by A. Filippenko.

Honors & Awards

Mary Elizabeth Uhl Prize, Department of Astronomy, UC Berkeley, 2000.

Phi Beta Kappa of Northern California Scholarship Award, 1999.

Outstanding Graduate Student Instructor Award, UC Berkeley, 1997.

Lydia Lo Scholarship, UC Berkeley, 1994–5.

NSF Graduate Fellowship Program, Honorable Mention, 1994.

Goldberg Prize for Outstanding Undergraduate Research in Astronomy, Harvard, 1994.

John Harvard Scholarship, 1991–2 and 1992–3.

Valedictorian, Stuyvesant High School, New York City, 1990.

National Merit Finalist, 1990.

Activities & Service

2007–present: Astronomy colloquium chair, U. of Illinois at Urbana-Champaign.

2007–present: AUI Committee on the Future of US Radio Astronomy.

2006 May: Anglo Australian Time Allocation Committee.

2005–2006: ATNF Astrophysics Advisory Committee.

2004–2006: ATNF co-supervisor for Steven Longmore (UNSW) and Annie Hughes (Swinburne U.).

2001 Dec & 2003 Dec: Research Supervisor for ATNF Summer Vacation Student Program.

2001–2004: Member, Australia Telescope Users Committee.

1999–2000: Volunteer, Project ASTRO, a program to bring astronomers into K-12 classrooms.

1998: Designed and instituted a peer mentoring system for incoming Berkeley graduate students.

1996–1998: Student Representative, Graduate Council of the Academic Senate, UC Berkeley. Participated in department reviews and provided input on policies related to graduate education.

Invited Talks

Star Formation at High Angular Resolution, IAU Symposium 221, Sydney, Australia, 2003 July.

Harley Wood Winter School, Batemans Bay, NSW, Australia, 2002 June.

Center for Star Formation Studies Workshop, Santa Cruz, 2001 July.

Skills

Languages: English (native), Mandarin and Cantonese Chinese (fluent), German (basic proficiency).

Programming: Fortran, C, C-shell, HTML, Perl.

Operating systems: SunOS Unix, Linux, Windows, Mac OS X.