

## Edmund C. Sutton – Curriculum Vitae

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University of Illinois  
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Education: University of California, Berkeley, 1974 – 1979  
Ph.D. awarded (Physics) – June, 1979

California Institute of Technology, 1970 – 1974  
B.S. with honors (Physics) – June, 1974

### Honors and Awards:

2003 Fall Incomplete List of Teachers Rated as Excellent by Their Students  
2003 Spring Incomplete List of Teachers Rated as Excellent by Their Students  
2000 Spring Incomplete List of Teachers Rated as Excellent by Their Students

1974 – 1977 National Science Foundation Graduate Fellowship

1973 Haren Lee Fisher Memorial Award (Physics Department  
Undergraduate Prize, California Institute of Technology)

Professional Societies: 1981 – present American Astronomical Society  
1994 – present International Astronomical Union

Professional Experience: 1991 – present Associate Professor of Astronomy  
University of Illinois at Urbana-Champaign

1983 – 1991 Associate Research Physicist, Lecturer, & Sr. Fellow  
University of California, Berkeley

1981 – 1983 Research Fellow  
California Institute of Technology

1979 – 1981 Postdoctoral Research Physicist  
University of California, Berkeley

### Edmund C. Sutton – Publications

- Sutton, E., Becklin, E. E., and Neugebauer, G. “34-Micron Observations of Eta Carinae, G333.6-0.2, and the Galactic Center,” 1974, *ApJ*, 190, L69-L70.
- Betz, A. L., Johnson, M. A., McLaren, R. A., and Sutton, E. C. “Heterodyne Detection of CO<sub>2</sub> Emission Lines and Wind Velocities in the Atmosphere of Venus,” 1976, *ApJ*, 208, L141-L144.
- Johnson, M. A., Betz, A. L., McLaren, R. A., Sutton, E. C., and Townes, C. H. “Nonthermal 10 Micron CO<sub>2</sub> Emission Lines in the Atmospheres of Mars and Venus,” 1976, *ApJ*, 208, L145-L148.
- Betz, A. L., McLaren, R. A., Sutton, E. C., and Johnson, M. A. “Infrared Heterodyne Spectroscopy of CO<sub>2</sub> in the Atmosphere of Mars,” 1977, *Icarus*, 30, 650-662.
- Sutton, E. C., Storey, J. W. V., Betz, A. L., Townes, C. H., and Spears, D. L. “Spatial Heterodyne Interferometry of VY Canis Majoris, Alpha Orionis, Alpha Scorpii, and R Leonis at 11 Microns,” 1977, *ApJ*, 217, L97-L100.
- Betz, A. L., Sutton, E. C., McLaren, R. A., and McAlary, C. W. “Laser Heterodyne Spectroscopy,” 1977, *Proc. Symposium on Planetary Atmospheres (Royal Soc. of Canada, Ottawa)*, pp. 29-33.
- Betz, A. L., Sutton, E. C., and McLaren, R. A. “Infrared Heterodyne Spectroscopy in Astronomy,” 1978, *TICOLS Proceedings – Laser Spectroscopy III*, eds. J. L. Hall and J. L. Carlsten (Springer Series in Optical Sciences, Vol. 7), Heidelberg, Springer-Verlag, pp. 31-38.
- Townes, C. H., Sutton, E. C., and Storey, J. W. V. “Infrared Heterodyne Interferometry,” 1978, *Optical Telescopes of the Future, (Conference Proceedings, Geneva 23: ESO c/o Cern)*, pp. 409-426.
- Sutton, E. C., Storey, J. W. V., Townes, C. H., and Spears, D. L. “Variations in the Spatial Distribution of 11 Micron Radiation from Omicron Ceti,” 1978, *ApJ*, 224, L123-L126.
- Sutton, E. C. “Results and Future Uses of Heterodyne Spatial Interferometry at 11 Microns,” 1979, *High Angular Resolution Stellar Interferometry (Proc. I.A.U. Colloquium No. 50)*, eds. J. Davis and W. J. Tango (Chatterton Astronomy Dept., School of Physics, University of Sydney), pp. 16.1-16.14.
- Dissertation: “Heterodyne Spatial Interferometry of Circumstellar Dust Shells at a Wavelength of 11 Microns,” 1979, Ph. D. dissertation, University of California, Berkeley.
- Sutton, E. C., Betz, A. L., Storey, J. W. V., and Spears, D. L. “The Brightness Distribution of IRC +10216 at 11 Microns,” 1979, *ApJ*, 230, L105-L108.

- Townes, C. H. and Sutton, E. C. “Multiple Telescope Infrared Interferometry,” Scientific Importance of High Angular Resolution at Infrared and Optical Wavelengths, 1981, (E.S.O. Conference Proceedings, Garching), eds. M. H. Ulrich and K. Kjar, pp. 199-223.
- Sutton, E. C., Subramanian, S., and Townes, C. H. “Interferometric Measurements of Stellar Positions in the Infrared,” 1982, *A&A*, 110, 324-331.
- Sutton, E. C. “A Superconducting Tunnel Junction Receiver for 230 GHz,” 1983, *IEEE Trans. Microwave Theory Tech.*, MTT-31, 589-592.
- Sutton, E. C., Masson, C. R., and Phillips, T. G. “The Distribution of the CO J=2-1 Emission from M82,” 1983, *ApJ*, 275, L49-L53.
- Irvine, W. M., Abraham, Z., A’Hearn, M., Altenhoff, W., Andersson, Ch., Bally, J., Batrla, W., Baudry, A., Bocklee-Morvan, D., Chin, G., Crovisier, J., de Pater, I., Despois, D., Ekelund, L., Gerard, E., Hasegawa, T., Heiles, C., Hollis, J. M., Huchtmeier, W., Kaifu, N., Levreault, R., Masson, C. R., Palmer, P., Perault, M., Rickard, L. J., Sargent, A. I., Scalise, E., Schloerb, F. P., Schmidt, S., Stark, A. A., Stevens, M., Stumpff, P., Sutton, E. C., Swade, D., Sykes, M., Turner, B., Wade, C., Walmsley, M., Webber, J., Winnberg, A., and Wooten, A. “Radioastronomical Observations of Comets IRAS-Araki-Alcock (1983d) and Sugano-Saigusa-Fujikawa (1983e),” 1984, *Icarus*, 60, 215-220.
- Blake, G. A., Sutton, E. C., Masson, C. R., Phillips, T. G., Herbst, E., Plummer, G. M., and De Lucia, F. C. “ $^{13}\text{CH}_3\text{OH}$  in OMC-1,” 1984, *ApJ*, 286, 586-590.
- Sutton, E. C., Blake, G. A., Masson, C. R., and Phillips, T. G. “On the Interpretation of the Broadband Millimeter-wave Flux from Orion,” 1984, *ApJ*, 283, L41-L44.
- Sargent, A. I., Sutton, E. C., Masson, C. R., Phillips, T. G., and Lo, K. Y. “CO(2-1) Observations of Maffei 2,” 1985, *The Milky Way Galaxy*, Proc. IAU Symposium No. 106 (Groningen, The Netherlands, May 30 - June 3, 1983), eds. van Woerden, H. G., et al., pp. 197-198.
- Sargent, A. I., Sutton, E. C., Masson, C. R., Lo, K. Y., and Phillips, T. G. “CO(2-1) Observations of the Nucleus of Maffei 2,” 1985, *ApJ*, 289, 150-154.
- Sutton, E. C., Blake, G. A., Masson, C. R., and Phillips, T. G. “Molecular Line Survey of Orion A from 215 to 247 GHz,” 1985, *ApJS*, 58, 341-378.
- Blake, Geoffrey A., Sutton, E. C., Masson, C. R., and Phillips, T. G. “The Rotational Emission-Line Spectrum of Orion A between 247 and 263 GHz,” 1986, *ApJS*, 60, 357-374.
- Danchi, W. C., Arthur, A., Fulton, R., Peck, M., Sadoulet, B., Sutton, E. C., Townes, C. H., and Weitzmann, R. H. “A High Precision Telescope Pointing System,” 1986, *Advanced Technology Optical Telescopes III*, Larry D. Barr, Editor, Proc. SPIE, 628, 422-428.

- Townes, C. H., Danchi, W. C., Sadoulet, B., and Sutton, E. C. “Long Baseline Spatial Interferometer for the IR,” 1986, *Advanced Technology Optical Telescopes III*, Larry D. Barr, Editor, Proc. SPIE, 628, 281-284.
- Sutton, E. C., Blake, Geoffrey A., Genzel, R., Masson, C. R., and Phillips, T. G. “Excitation of Methyl Cyanide in the Hot Core of Orion,” 1986, *ApJ*, 311, 921-929.
- Danchi, W. C. and Sutton, E. C. “Frequency Dependence of Quasiparticle Mixers,” 1986, *J. Appl. Phys.*, 60, 3967-3977.
- Blake, Geoffrey A., Sutton, E. C., Masson, C. R., and Phillips, T. G. “Molecular Abundances in OMC-1: The Chemical Composition of Interstellar Molecular Clouds and the Influence of Massive Star Formation,” 1987, *ApJ*, 315, 621-645.
- Sutton, E. C. and Herbst, Eric. “Identification of Interstellar Methanol Lines,” 1988, *ApJ*, 333, 359-365.
- Danchi, W. C., Golightly, W. J., and Sutton, E. C. “Inverse AC Josephson Effect at Terahertz Frequencies,” 1989, *J. Appl. Phys.*, 65, 2772-2786.
- Danchi, W. C., Sutton, E. C., Jaminet, P. A., and Ono, R. H. “Nb Edge Junction Process for Submillimeter Wave SIS Mixers,” 1989, *IEEE Trans. Magn.*, MAG-25, 1064-1067.
- Sutton, E. C., Jaminet, P. A., Danchi, W. C., Masson, C. R., and Blake, Geoffrey A., “A Submillimeter Line Survey of Sgr B2,” 1990, *Submillimetre and Millimetre Wave Astronomy*, G. D. Watt and A. S. Webster, Eds., pp. 105-106.
- Bash, F. N., Davis, J. H., Jaffe, D. T., Wall, W. F., and Sutton, E. C., “CO 3-2 Observations of NGC 253,” 1990, *Submillimetre and Millimetre Wave Astronomy*, G. D. Watt and A. S. Webster, Eds., pp. 227-228.
- Masson, C. R., Keene, J. B., Mundy, L. G., Blake, G. A., Sutton, E. C., Danchi, W., and Jaminet, P., “A Search for Dense Gas Around Young Stars,” 1990, *Submillimetre and Millimetre Wave Astronomy*, G. D. Watt and A. S. Webster, Eds., pp. 265-266.
- Sutton, E. C., Danchi, W. C., Jaminet, P. A., and Masson, C. R., “CO J=3-2 Observations of the Neutral Disk in Sagittarius A West,” 1990, *ApJ*, 348, 503-514.
- Sutton, E. C., Danchi, W. C., Jaminet, P. A., and Ono, R. H., “A Superconducting Tunnel Junction Receiver for 345 GHz,” 1990, *Int. J. Infrared Millimeter Waves*, 11, 133-150.
- Sutton, E. C., “Requirements for SIS Receivers in the 500-1000 GHz Region,” 1990, *Proc. 29th Liège International Astrophysical Colloquium, From Ground-Based to Space-Borne Sub-mm Astronomy*, (Liège, Belgium, 3-5 July 1990, ESA SP-314), pp. 199-204.

- Tilanus, R. P. J., Tacconi, L. J., Sutton, E. C., Zhou, S., Sanders, D. B., Wynn-Williams, C. G., Lo, K. Y., and Stephens, S. A., “CO (3-2) Mapping and Gas Excitation in the Core of M82,” 1991, *ApJ*, 376, 500-504.
- Sutton, E. C., Jaminet, P. A., Danchi, W. C., and Blake, G. A., “Molecular Line Survey of Sgr B2(M) from 330 to 355 GHz and Comparison with Sgr B2(N)”, 1991, *ApJS*, 77, 255-285.
- Jaminet, P. A., Danchi, W. C., Sutton, E. C., Russell, A. P. G., Sandell, G., Bieging, J. H., and Wilner, D., “CO J=3-2 and J=2-1 Observations of NGC 7027”, 1991, *ApJ*, 380, 461-475.
- Jaminet, P. A., Danchi, W. C., Sandell, G., and Sutton, E. C., “Submillimeter Line Observations of the Proto-Planetary Nebula CRL 2688”, 1992, *ApJ*, 400, 535-550.
- Sutton, E. C., Peng, R., Danchi, W. C., Jaminet, P. A., Sandell, G., and Russell, A. P. G., “Chemistry of the Orion Molecular Cloud Core”, 1995, Proc. 2nd Cologne-Zermatt Symposium, The Physics and Chemistry of Interstellar Molecular Clouds, (Zermatt, Switzerland, September 21-24, 1993), eds. G. Winnewisser & G. C. Pelz, (Springer Lecture Notes in Physics, vol. 459), pp. 269-270.
- Sutton, E. C., Peng, R., Danchi, W. C., Jaminet, P. A., Sandell, G., and Russell, A. P. G., “The Distribution of Molecules in the Core of OMC-1”, 1995, *ApJS*, 97, 455-496.
- Woody, D., Holdaway, M., Lay, O., Masson, C., Owen, F., Plambeck, R., Radford, S., and Sutton, E., “Report from the Phase Calibration Working Group”, 1995, NRAO MMA Memo 144 (<http://www.tuc.nrao.edu/mma/memos/mma144>).
- Sutton, E. C. and Sandell, G., “Spectral Observations of the Molecular Cloud Orion S”, 1996, *Amazing Light: A Volume Dedicated to Charles Hard Townes on his 80th Birthday*, ed. R. Y. Chiao, (Springer, New York), pp. 627-635.
- Sutton, E. C. and Hueckstaedt, R. M., “Radiometric Monitoring of Atmospheric Water Vapor as it Pertains to Phase Correction in Millimeter Interferometry”, 1996, *Astron. Astrophys. Suppl. Ser.*, 119, 559-567.
- Peng, R., Zhou, S., Whiteoak, J. B., Lo, K. Y., and Sutton, E. C., “BIMA CS J=2-1 Observations of NGC 253: Kinematic Evidence for Dense Gas in a Bar”, 1996, *ApJ*, 470, 821-830.
- Sutton, E. C., “Hipparcos Astrometry of Infrared-Selected Sources and Comparison with SiO Maser Positions”, 1997, *PASP*, 109, 1085-1088.
- Carilli, C. L., Lay, O., and Sutton, E. C., “Radiometric Phase Correction”, 1998, NRAO MMA Memo 210 (<http://www.alma.nrao.edu/memos/html-memos/alma210/memo210.html>).
- Fong, D., Meixner, M., Sutton, E. C., Welch, W. J., Bujarrabal, V., and Castro-Carrizo, A. “High Resolution CO Observations of Evolved Stars Imaged with the BIMA Array and Some ISO

- Results”, 2000, *Asymmetrical Planetary Nebulae II: From Origins to Microstructures*, ASP Conference Series, Vol. 199, ed. J. H. Kastner, N. Soker, and S. Rappaport, pp. 87-90.
- McCutcheon, W. H., Sandell, G., Matthews, H. E., Kuiper, T. B. H., Sutton, E. C., Danchi, W. C., and Sato, T. “Star Formation in NGC 6334 I and I(N)”, 2000, *MNRAS*, 316, 152-164
- Fong, D., Meixner, M., Castro-Carrizo, A., Bujarrabal, V., Latter, W. B., Tielens, A. G. G. M., Kelly, D. M., and Sutton, E. C. “Low-excitation Atomic Gas around Evolved Stars I: ISO Observations of C-rich Nebulae”, 2001, *A&A*, 367, 652-673
- Sutton, E. C., Sobolev, A. M., Ellingsen, S. P., Cragg, D. M., Mehringer, D. M., Ostrovskii, A. B., and Godfrey, P. D. “New Class II Methanol Masers in W3(OH)”, 2001, *ApJ*, 554, 173-189
- Sobolev, A. M., Sutton, E. C., Cragg, D. M., Ellingsen, S. P., Mehringer, D. M., Zinchenko, I. I., Ostrovskii, A. B., and Godfrey, P. D. “Masers and Outflows in the W3(OH)/W3(H<sub>2</sub>O) Region”, 2001, *Astronomical and Astrophysical Transactions*, 20, 229-232
- Meixner M., Fong D., Sutton, E. C., Castro-Carrizo A., Bujarrabal V., Latter W. B., Tielens A. G. G. M., Kelly, D., and Barlow M. J. “Atomic Gas in Evolved Stars: PDRs or Shocks?”, 2001, *Proceedings of The Fourth Tetons Summer Conference, Galactic Structure, Stars and the Interstellar Medium*, ASP Conference Series, Vol. 231, eds. Woodward, C. E., Bica M., and Shull, J. M., pp. 488-495.
- Fong D., Meixner M., Sutton E. C., Castro-Carrizo A., Bujarrabal V., Latter W. B., Tielens A. G. G. M., and Kelly D. M. “Low-Excitation Atomic Gas Around Evolved Stars: ISO Observations of C-rich Nebulae”, 2001, *Proceedings of conference on Post-AGB Objects as a Phase of Stellar Evolution*, ed. Szczerba, R. and Górny, S. K., *Astrophysics and Space Science Library* vol. 265, pp. 403-408.
- Meixner, M., Fong, D., Sutton, E. C., and Welch, W. J. “Molecular Gas Images of Proto-Planetary Nebulae”, 2001, *Proceedings of conference on Post-AGB Objects as a Phase of Stellar Evolution*, ed. Szczerba, R. and Górny, S. K., *Astrophysics and Space Science Library* vol. 265, pp. 369-376.
- Sobolev, A. M., Ostrovskii, A. B., Malyshev, A. V., Cragg, D. M., Sutton, E. C., Watson, W. D., Ellingsen, S. P., and Caswell, J. L. “Models of Class II Methanol Masers”, 2002, *Proceedings of IAU Symposium No. 206 (Cosmic Masers: From Proto-Stars to Black Holes)*, eds. Migenes, V. and Reid, M. J., 179-182.
- Meixner M., Fong D., Sutton, E. C., Castro-Carrizo A., Bujarrabal V., Latter W. B., Tielens A. G. G. M., Kelly, D., and Barlow M. J. “Far-Infrared Atomic Lines: PDRs or Shocks?”, 2002, *Proceedings of IAU Symposium No.209 (Planetary Nebulae: Their Evolution and Role in the Universe)*, M. Dopita, S. Kwok, and R. S. Sutherland, eds., 349-352.

- Sobolev, A. M., Salii, S. V., Ellingsen, S. P., Zinchenko, I. I., Johansson, L. E. B., and Sutton, E. C. “Molecular Radio Emission from the G34.26+0.15/34.24+0.13 Complex”, 2003, *Astronomical and Astrophysical Transactions*, 22, 7-10.
- Sutton, E. C. and Sobolev, A. M. “Abundances of Organic Molecules in Molecular Cloud Cores”, 2004, *Proceedings of IAU Symposium No. 213 (Bioastronomy 2002: Life Amongst the Stars)*, R. Norris and F. Stootman, eds., 173-176.
- Fong, D., Meixner, M. Sutton, E. C., and Welch, W. J. “The Molecular Morphology of Evolved Stars”, 2003, *Proceedings of IAU Symposium No.209 (Planetary Nebulae: Their Evolution and Role in the Universe)*, S. Kwok, M. Dopita, and R. S. Sutherland, eds., 273-274.
- Sutton, E. C., Sobolev, A. M., Salii, S. V., Malyshev, A. V., Ostrovskii, A. B., Zinchenko, I. I. “Methanol in W3(H<sub>2</sub>O) and Surrounding Regions”, 2004, *ApJ*, 609, 231-242
- Sobolev, A. M., Sutton, E. C., and Watson, W. D. “Properties of Masing Regions”, 2004, *The Dense Interstellar Medium in Galaxies, Proceedings of the 4th Cologne-Bonn-Zermatt Symposium, Zermatt, Switzerland, 22-26 September 2003*. Edited by S.Pfalzner, C. Kramer, C. Staubmeier, and A. Heithausen. Springer Proceedings in Physics, Vol. 91. Berlin, Heidelberg: Springer, poster contribution.
- Remijan, A., Sutton E. C., Snyder, L. E., Friedel, D. N., Liu, S.-Y., and Pei, C.-C. “High Resolution Observations of Methyl Cyanide (CH<sub>3</sub>CN) toward the Hot Core Regions W51 e1/e2”, 2004, *ApJ*, 606, 917-928.
- Sobolev, A. M., Sutton, E. C., Cragg, D. M., and Godfrey, P. D. “Model of W3(OH) Environment Based on Data for both Maser and ‘Quasi-thermal’ Methanol Lines”, 2004, *Ap&SS*, 295, 189-196
- Chen, H.-R., Welch, W. J., Wilner, D. J., and Sutton, E. C. “A Massive Protobinary in the Hot Core W3(H<sub>2</sub>O)”, *Proceedings of Protostars and Planets V*, 2005, 8418.
- Chen, H.-R., Welch, W. J., Wilner, D. J., and Sutton, E. C. “A High-Mass Protobinary in the Hot Core W3(H<sub>2</sub>O)”, 2006, *ApJ*, 639, 975-990.
- Fong, D., Meixner, M., Sutton, E. C., Zalucha, A., and Welch, W. J. “Evolution of the Circumstellar Molecular Envelope I: A BIMA CO Survey of Evolved Stars”, 2006, *ApJ*, 652, 1626-1653.
- Sutton, E. C. and Wandelt, B. D. “Optimal Image Reconstruction in Radio Interferometry”, 2006, *ApJS*, 162, 401-416.
- Chen, H.-R., Welch, W. J., Wilner, D. J., and Sutton, E. C. “A Massive Protobinary System in the Hot Core W3(H<sub>2</sub>O)”, 2006, *Proceedings of ASP Conference: Revealing the Molecular Universe: One Antenna is Never Enough*, D.C. Backer, J.M. Moran, and J.L. Turner, eds. 356, 270-274.

- Sobolev, A. M., Sutton, E. C., Watson, W. D., Ostrovskii, A. B., and Shelemei, O. V. “Sizes of Masing Parts of Massive Star Forming Regions”, 2008, Proceedings of the Gamov memorial conference, Radiophysics and Radioastronomy (Ukraine), 13, 3, 76-80.
- Shiao, Y.-S. Jerry, Looney, Leslie W., and Sutton, Edmund C. “Exploring Power Patterns of Parabolic Antennas: Implications for Water Vapor Radiometers”, 2008, CARMA Memorandum Series #42 ([http://www.mmarray.org/memos/carma\\_memo42.pdf](http://www.mmarray.org/memos/carma_memo42.pdf)).
- Sutton, E. C. ”Observational Astronomy: Techniques and Instrumentation”, 2011 (Cambridge Univ. Press, Cambridge), 411 pp.



**Edmund C. Sutton – Invited talks, Colloquia, etc.** (partial list)

- “Interstellar Spectroscopy at 230 GHz”, Centre d’Etudes et de Recherches Geodynamiques et Astronomiques, Grasse, France, August 29, 1983.
- “Interstellar Spectroscopy at 230 GHz”, Royal Observatory, Edinburgh, September 1, 1983.
- “Interstellar Spectroscopy at 230 GHz”, Mullard Radio Astronomy Observatory, Cavendish Laboratory, University of Cambridge, September 9, 1983.
- “Molecular Line Survey of Orion”, Physics Department Colloquium, University of Massachusetts, Amherst, April 23, 1985.
- “The Chemical Composition of the Orion Molecular Cloud”, Astronomy Department Colloquium, Harvard University, April 17, 1986.
- “Identification of Interstellar Methanol Lines”, Harvard/Smithsonian Center for Astrophysics, April 22, 1988.
- “SIS Receivers at High Frequencies”, Department of Electrical and Computer Engineering, University of Illinois at Urbana-Champaign, February 19, 1990.
- “Chemistry of Interstellar Molecular Clouds”, Astronomy Department Colloquium, University of Illinois at Urbana-Champaign, February 20, 1990.
- “JCMT 345 GHz Survey of Regions Near the Orion Hot Core”, Workshop on Chemistry in Star-Forming Regions, Leiden University, Holland, March 29, 1995.
- “Radiometric Monitoring of Atmospheric Water Vapor”, LAI seminar, Astronomy Department, University of Illinois at Urbana-Champaign, February 7, 1996.
- “Wave Functions, Spin Statistics, and Partition Functions for  $C_{3v}$  Molecules”, Astronomy 496M, April 3, 1997.
- “Methanol Masers in W3(OH)”, LAI seminar, Astronomy Department, University of Illinois at Urbana-Champaign, March 9, 2001.
- “Bayesian Analysis in Radio Astronomy”, Astronomy Department Colloquium, University of Illinois at Urbana-Champaign, September 7, 2004.
- “Bayesian Analysis in Astronomy”, Radio and Geoastronomy Division, Harvard-Smithsonian Center for Astrophysics, November 19, 2004.
- “Bayesian Analysis in Astronomy”, Radio Astronomy Laboratory, Astronomy Department, University of California, Berkeley, November 22, 2004.

“Bayesian Analysis in Astronomy”, Astronomy Department Colloquium, University of Wisconsin, Madison, February 15, 2005.

“Bayesian Analysis in Radio Astronomy”, Laboratory for Millimeter-Wave Astronomy, Astronomy Department, University of Maryland, March 14, 2005.

“Bayesian Analysis in Astronomy”, Joint Colloquium, Astronomy Department, University of Virginia and National Radio Astronomy Observatory (Charlottesville), March 31, 2005.

“Bayesian Interferometric Image Reconstruction”, National Radio Science Meeting, International Union of Radio Science, Boulder, CO, January 6, 2006.

“Bayesian Interferometric Imaging”, XXIX General Assembly, International Union of Radio Science, Chicago, IL, August 15, 2008.

## Edmund C. Sutton – Teaching

Table 1: Classroom Teaching

Semester(s)	Course Number and Title
Spring, Fall 1986	Physics 110A, B: Electromagnetism and Optics (U. C. Berkeley)
Fall 1988	Physics 110A: Electromagnetism and Optics (U. C. Berkeley)
Fall 1991, 94, 95, 01, Spring 04	Astronomy 314: Astronomical Techniques
Spring 1992, 95, 96, 97, 98, 99	Astronomy 403: Observational Astronomy
Fall 1992, 93, 97, Spring 2001	Astronomy 100: Perspectives in Astronomy
Spring 1993	Astronomy 102: Descriptive Astronomy
Spring 1994	Astronomy 122: Descriptive Astronomy
Fall 1996, 00	Astronomy 496: Radio Interferometry & Aperture Synthesis
Fall 1998	Astronomy 122: Stars and Galaxies
Fall 1999	Astronomy 121: Solar System
Spring 2000	Astronomy 403: Observational Astronomy (Incomplete List of Teachers Rated as Excellent by Their Students)
Fall 2002	Astronomy 496: Astrochemistry
Spring 2003	Astronomy 403: Observational Astronomy (Incomplete List of Teachers Rated as Excellent by Their Students)
Fall 2003	Astronomy 496: Radio Astronomy (Incomplete List of Teachers Rated as Excellent by Their Students)
Spring 2004	Astronomy 301: Scientific Writing for Astronomers
Fall 2004, 05, 08, 09, 11	Astronomy 121: Solar System
Spring 2005, 09, Fall 06	Astronomy 503: Observational Astronomy
Spring 2006, 08, 12	Astronomy 414: Astronomical Techniques
Spring 2007, 10, 11	Astronomy 121: Solar System
Fall 2007	Astronomy 596: Radio Astronomy
Spring 2008	Astronomy 401: Scientific Writing for Astronomers

Table 2: Honors Projects

Semester	Student(s)	Course
Fall 1998	T. Parker, B. Roe, M. Janes	Astronomy 122
Fall 1999	K. Ancell	Astronomy 121
Spring 2001	R. Al-heeti, J. Blass, A. Edstrom	Astronomy 100
Fall 2001	D. DuBrow	Astronomy 314
Spring 2004	J. Simon, B. Carls	Astronomy 314
Fall 2004	A. Antrim	Astronomy 121
Spring 2007	S. Wolak, S. McAndrew	Astronomy 121
Spring 2010	J. Anderson	Astronomy 121
Spring 2011	D. Ciasnocha, B. Mitchell, A. Petit	Astronomy 121
Fall 2011	H. Hess, M. King	Astronomy 121

Table 3: Individual Instruction

Semester(s)	Student(s)	Course
Fall 1987	W. Golightly	Physics H195A: Honors Sr. Thesis Res. (UCB)
Spring 1988	W. Golightly	Physics H195B: Honors Sr. Thesis Res. (UCB)
Spring 1992	M. McCauley	Astronomy 290
Spring 1992	A. Ramirez (with J. Dickel), H. Quinn	Astronomy 396
Spring 1992	R. Rao	Astronomy 490: Radio Interfer. & Ap. Synth.
Summer 1992, 93	R. Rao	Astronomy 490
Fall 1992	R. Rao	Astronomy 490
Fall 1993	T. Laurent	Astronomy 199
Spring 1995	D. Goscha	Astronomy 290
Summer 1995	R. Frazin	Astronomy 490
Fall 1995	R. Frazin	Astronomy 490
Fall 1995	W. Czerwinski	Astronomy 290
Spring 1996	R. Frazin	Astronomy 490
Summer 1998	Y. Chen	Astronomy 490
Fall 1998	D. Paron	Astronomy 290
Spring 2000	D. Friedel	Astronomy 490
Fall 2000	R. Wolfson	Astronomy 301/396-RI
Fall 2001	B. Bye	Astronomy 301
Summer 2003	C. Ramsey	Astronomy 199
Spring 2004	C. Hall, H. Shupp	Astronomy 301
Spring 2006	J. O’Keefe, A. Coughlin, S.-C. Huang	Astronomy 401
Spring 2010	B. Fry	Astronomy 490: Observational Astronomy

Table 4: Undergraduate Research Supervision

Period	Student	Nature of Research
1986	W. Glaser	Computer Analysis of Superconductive Tunneling in the Time Domain
1987–1988	W. Golightly	Research in Experimental Astrophysics
1991–1992	M. McCauley	Spectroscopy of Methanol
1995	R. Hueckstaedt	Molecular Astrophysics and Instrumentation
2004	W. Gartenberg	Analysis of BIMA Data

Table 5: Preliminary and Final Doctoral Exams

Date	Student	Preliminary/Final
11/23/92	Y.-J. Kuan	preliminary
12/4/92	R. Plante	preliminary
12/21/93	Y. Miao	preliminary
11/1/94	R. Plante	final
9/13/96	Y. Miao	final
12/16/97	J. Veal	preliminary
7/29/98	J. Veal	final
9/9/98	R. Frazin	preliminary
12/4/98	D. Fong	preliminary
12/5/00	A. Remijan	preliminary (reconvened 2/2/01)
4/4/02	R. Frazin	final
2/6/03	D. Fong	final
5/6/03	D. Friedel	preliminary
12/4/03	A. Remijan	final
1/15/04	I. O’Dwyer	preliminary
9/15/04	P. Cortes	preliminary
7/1/05	I. O’Dwyer	final
11/16/05	P. Cortes	final
11/30/05	D. Friedel	final
8/1/06	Y.-S. Shiao	preliminary
1/25/07	W. Kwon	preliminary
7/26/07	H.-L. Kuo	preliminary
9/21/07	M. Mitra	preliminary
11/16/07	R. Khatri	preliminary
8/19/08	Y.-S. Shiao	final
10/27/09	W. Kwon	final
6/30/10	R. Khatri	final

Table 6: Graduate Research Supervision

Period	Student(s)	Nature of Research
1987–1992	P. Jaminet	“A Superconducting Tunnel Junction Receiver for Submillimeter Astronomy and Analysis of Observations of Post-AGB Star Molecular Envelopes,” Ph. D. (Physics), June 1992, Univ. California (Berkeley).
1993–1995	R. Rao	Superconducting Tunnel Junction Mixers and Astrophysics of Interstellar Molecular Clouds
1996–1998	J. Veal	informal joint thesis supervision
1998–2002	R. Frazin	informal joint thesis supervision
1998–2003	D. Fong	informal joint thesis supervision
1999–2003	A. Remijan	informal joint thesis supervision
2002–2005	D. Friedel	informal joint thesis supervision

Table 7: Postdoctoral Research Supervision

Period	Name	Nature of Research
1991–1993	K. Wan	Superconducting Tunnel Junction Mixers
1991–1995	R. Peng	Molecular Astrophysics

### Edmund C. Sutton – Service Activities

Table 8: University/Campus Service (UIUC)

Period	Activity
1992–1998	Urbana-Champaign Senate
1994–1996	Senate Committee on Campus Operations
1994–1996	Energy Conservation Advisory Committee
1997	University of Illinois Foundation <sup>a</sup>
2005–2012	International Hospitality Committee, host

<sup>a</sup>helped N. Handley host Sheldon and Anita Drobny

Table 9: Departmental Service (Astronomy Department, UIUC)

Period(s)	Activity
1990–1993, 2006–2007	Qualifying Exam Committee (chair 1992-1993)
1991–1992, 2008	Colloquium Committee
1991–1996, 1999–2001, 2002–2005, 2006–2010	Undergraduate Advisor
1992–1994, 1996–2003	Computer Committee (chair 1996-2001)
1993	Adaptive Optics Faculty Search Committee
1993–1996, 2003–2005	Executive Committee
1993–1997, 2003–2007	TA Director <sup>a</sup>
1997–2001, 2002–2003, 2008–2009	Capricious Grading Committee
2000–2001	Curriculum Committee
2001–2003	edited annual departmental report to BAAS
2002	revised Astr 121 & 122 for QR II Gen Ed.
2004–2006, 2008–2011	General Graduate Advisor (Director of Graduate Studies)
2006–2007	Astrochemistry Concentration Steering Committee
2009–2010	CARMA Outreach Supervisor

<sup>a</sup>Included supervising a major mechanical overhaul of the campus 12 inch telescope and dome.

Table 10: Public Lectures

Date	Activity
10/18/04	“The Universe Seen Through Radio Waves”, University of Illinois Astronomical Society



Table 11: Professional Service

Period(s)	Activity
1980–81	referee, Applied Optics
1984–85	reviewer, observing time proposals for Kitt Peak National Observatory
1984–86	referee, Publ. Astron. Soc. Japan
1985–86, 89–94	referee, Astrophys. Journal
1986–87, 88–89	reviewer, proposals to Caltech’s President’s Fund
1987–88	referee, Astron. Astrophys.
1987–89, 92–94	reviewer, National Science Foundation
1987–88	member of site visitation committee, National Science Foundation
1989–90	reviewer, U. S. Army Research, Development, & Standardization Group
1992–93, 94–95	referee, IEEE Trans. Microwave Theory Tech.
1993–96, 01–03	reviewer, observing time proposals for BIMA
1995	member, Phase Calibration Committee for MMA
1995–96, 98–99	referee, Astrophys. Journal
1995–97	reviewer, observing time proposals for National Radio Astronomy Observatory
1998–99	referee, Monthly Notices of the Royal Astronomical Society
1999–2000	scheduler for BIMA
2000, 01, 02	reviewer, Research Board (UIUC)
2000	reviewer, U.S. CRDF <sup>a</sup>
2000–03, 04–05	referee, Astrophys. Journal
2001	reviewer, Brooks/Cole Publishing (Seeds, “Horizons” 7 ed.)
2002–03	reviewer, K-12 curricula materials, WestEd/PASS (NSF project RISSA)
2004–05	referee, Radio Science
2005–06	referee, Astron. Journal
2006–07	CARMA TAC
2007	reviewer, Pearson Addison-Wesley (Bennett et al., “The Essential Cosmic Perspective” 4 ed.)
2007	panelist, National Science Foundation, GAL/ISM
2007–08	referee, Astrophys. Journal
2008	reviewer, UI College of Engineering, Lockheed Martin proposal
2010	reviewer, W W Norton, (Hester et al., “21st Century Astronomy” 3 ed.)
2011	reviewer, Yale University Press

<sup>a</sup>Civilian Research & Development Foundation for the Independent States of the Former Soviet Union

Table 12: Community Service

Period	Activity
2010-12	mentor, Champaign Unit 4 School system (Jefferson Middle School)