

CURRICULUM VITAE: Aileen A. O'Donoghue

- EDUCATION:** May 1989 **Ph.D. in Physics**, New Mexico Institute of Mining and Technology (NMIMT)
Socorro, New Mexico
Dissertation Title: "VLA Observations of Wide Angle Tail Radio Sources and an Investigation of Flow Models and Bending Dynamics"
- October 1987 **M.S. in Physics**, New Mexico Institute of Mining and Technology, Socorro, NM
- April 1981 **B.S. in Physics**, Fort Lewis College, Durango, CO
- June 1978 **A.A. in Science and Mathematics**, Colorado Mountain College, Glenwood Spgs, CO
- POSITIONS:** 8/06 - **Priest Associate Professor of Physics**, St. Lawrence University (SLU)
Endowed Chair
- 8/94 - 8/06 **Associate Professor of Physics**, St. Lawrence University (SLU)
Canton, New York
Courses taught:
Introductory *Astronomy* for non-science students (with lab), *Mission Mars*, an interdisciplinary, project-based, introductory science course for non-science students, *Global Climate*, an interdisciplinary, team-taught course on meteorology, climate and climate change for non-science students, Introductory *Astrophysics*, *Modern Physics*, *Classical Mechanics* and *Mathematical Methods of Physics*.
- 9/01 -6/02 **Visiting Scientist**, Vatican Observatory Research Group (VORG), Tucson, Arizona
Engaged in spectroscopic research on stars under the NStars Project in collaboration with Richard Gray (Appalachian State University) and Chris Corbally (VORG)
- 6/95 -10/95 **Visiting Associate Professor of Astronomy**, Cornell University, Ithaca, New York
Taught summer introductory astronomy course and engaged in spectroscopic research on galaxies with the extragalactic research group, performing observations and analyzing optical Palomar and Kitt Peak Observatories.
- 1/96 - 5/96 **Visiting Scientist**, NRAO VLA¹, Socorro, New Mexico
Engaged in research on radio galaxies using VLA data.
- 8/89 - 8/94 **Assistant Professor of Physics**, SLU
Courses taught:
Introductory *Physics* (calculus and non-calculus, with lab), Introductory *Astronomy* (with lab), laboratory for *Conceptual Physics*, Interdisciplinary *First Year, Program* for first year students of all majors, Classical Mechanics
- 8/88 - 8/89 **Instructor of Physics**, SLU
Taught physics and astronomy courses.
- 6/88 - 8/88 **Research Assistant**, NMIMT
- 8/87 - 5/88 **Graduate Instructor of Physics**, NMIMT
Guest Research Associate, Very Large Array Radio Telescope (VLA)
National Radio Astronomy Observatory (NRAO), Socorro, New Mexico
Acted as Site Scientist available to visiting observers for help with observing programs, data reduction, and facility operation.
- 5/85 - 8/87 **Junior Research Associate**, NRAO VLA
Fellowship position for thesis work. Also acted as site scientist helping visiting observers.
- 1/85 - 5/85 **Research Assistant**, NMIMT and NRAO VLA
In collaboration with F. N. Owen, made VLA observations and did consequent calibration and imaging of OJ 287 in an investigation of closure errors (*cf.* VLA Scientific Memo #155).
- 8/83 - 12/84 **Graduate Instructor of Physics**, NMIMT
Taught lecture section of introductory, calculus-based physics course.
- 5/82 - 8/83 **Research Assistant**, NASA-NMIMT Joint Observatory for Cometary Research (JOCR)
Observed cometary ion tails with a 14 inch Schmidt telescope
- 8/81 - 5/82 **Teaching Assistant**, NMIMT
Instructed in the introductory physics laboratory.

¹National Radio Astronomy Observatory Very Large Array Radio Telescope

- PROFESSIONAL ORGANIZATIONS:** International Astronomical Union (2012), American Astronomical Society, Royal Astronomical Society of Canada, Astronomical Society of the Pacific, Sigma Pi Sigma ($\Sigma\Pi\Sigma$), Astronomical Society of New York, Adirondack Public Observatory
- PROFESSIONAL SERVICE:** July 2002 – Treasurer, New York Astronomical Corporation
July 2000 – Member, Board of Directors, New York Astronomical Corporation
Dec. 2003 – Member, Board of Directors, Adirondack Public Observatory
- RESEARCH INTERESTS:** Extended Extragalactic Radio Sources, Radio jets, Clusters of Galaxies, Galaxies, Radio Astronomy, Optical Spectroscopy, Stellar Classification
- RESEARCH GROUPS:** Co-Investigator, ALFALFA (Arecibo Legacy Fast ALFA) Survey; a blind survey of the sky visible from Arecibo outside the Milky Way galaxy.
- PUBLICATIONS:** Haynes, M. P., Giovanelli, R., Martin, A. M., Hess, K. M., Saintonge, A., Adams, E. A., Hallenbeck, G., Hoffman, L. G., Huang, S., Kent, B. R., Koopman, R., A., Papastergis, E., Stierwalt, S., Balonek, T. J., Craig, D. W., Higdon, S. J. U., Kornreich, D. A., Miller, J. R., **O'Donoghue, A. A.**, Olowin, R. P., Rosenberg, J. L., Spekkens, K., Troischt, P., and Wilcots, E., *The Arecibo Legacy Fast ALFA Survey: The α 40 HI Source Catalog, its Characteristics and Their Impact on the Derivation of the HI Mass Function*, A.J., 2011, **142**, 170-198.
- REFEREED JOURNALS:** Gray, R. O., Corbally, C. J., Garrison, R. F., McFadden, M. T., Bubar, E. J., McGahee, C. E., **O'Donoghue, A. A.**, and Knox, E. R., 2006, *Contributions to the Nearby Stars (NStars) Project: Spectroscopy of Stars Earlier than M0 within 40 pc-The Southern Sample*, A.J., 2006, **132**, 161-170.
- Young, A., Rudnick, L., Katz-Stone, D. M., and **O'Donoghue, A. A.**, 2002, *Electron Population Aging Models for Wide-Angle Tails*, New Astronomy Reviews, **46**, 105-107.
- Katz-Stone, D. M., Rudnick, L., Buten hoff, C., and **O'Donoghue, A. A.**, 1999, *Coaxial Jets And Sheaths In Wide Angle Tail Radio Galaxies*, Ap. J., **516**, 716-728.
- van Zee, Liese, Salzer, John J., Haynes, Martha P., **O'Donoghue, Aileen A.**, and Balonek, Thomas J., 1998, *Spectroscopy of Outlying HII Regions in Spiral Galaxies: Abundances and Radial Gradients*, A. J., **116**: 2805-2833.
- O'Donoghue, A. A.**, Eilek, J. A., and Owen F. N. 1993, *Flow Dynamics of Wide-Angle Tailed Radio Sources*, Ap. J., **408**: 428-445.
- O'Donoghue, A. A.**, Owen, F. N., and Eilek, J. A. 1990, *VLA Observations of Wide-Angle Tailed Radio Sources*, Ap. J. Suppl., **72**: 75-131.
- MONOGRAPHS:** O'Donoghue, Aileen, (2007), The Sky is Not a Ceiling (Maryknoll, NY: Orbis Books)
- MEETINGS PROCEEDINGS:** **O'Donoghue, Aileen**, 2011, *Using Time Zones and Celestial Navigation to Teach the Phases of the Moon*, in Earth and Space Science: Making Connections in Education and Public Outreach, ASP Conference Series, 433, ed. Jensen *et al* (San Francisco:ASP), 466-469.
- O'Donoghue, Aileen**, 2011, *Teaching Climate Change*, in Earth and Space Science: Making Connections in Education and Public Outreach, ASP Conference Series, 433, ed. Jensen *et al* (San Francisco:ASP), 355-358.
- O'Donoghue, Aileen**, 2011, *Teaching Climate Change*, in Earth and Space Science: Making Connections in Education and Public Outreach, ASP Conference Series, 433, ed. Jensen *et al* (San Francisco:ASP), 43-47.
- O'Donoghue, Aileen A.**, Eilek, Jean A., & Owen, Frazer N. 1996, *Observations of Straight-Angle Tailed Radio Sources in Rich Clusters of Galaxies*, in Extragalactic Radio Sources, IAU Symp. 175, ed. R. Ekers *et al* (Dordrecht:Kluwer).
- O'Donoghue, Aileen A.**, 1992, *The Problem of Bending Wide Angle Tail Radio Sources*, in New York State Astronomy (Schenectady, NY: L. Davis Press).
- O'Donoghue, A. A.**, 1986, *What Bends WATS?*, in Radio Continuum Processes in Clusters of Galaxies, Proc. NRAO Workshop 16, ed. C. P. O'Dea and J. M. Uson (Green Bank West Virginia: NRAO).
- O'Donoghue, A. A.** and Owen, F. N. 1986, *Intensity Maps of Six Wide-Angle Tailed Radio Sources*, in Radio Continuum Processes in Clusters of Galaxies, Proc. NRAO Workshop 16, ed. C. P. O'Dea and J. M. Uson (Green Bank West Virginia: NRAO).

- TECHNICAL MEMOS: O'Donoghue, A. A. and Owen, F. N., 1985, *Closure Errors*, VLA Scientific Memo #155 (Socorro, New Mexico: NRAO-VLA).
- SCHOLARLY ESSAYS: O'Donoghue, A., 2010, *Response to "The Humble Heart" by Cynthia Reville Peabody*, Union Seminary Quarterly Review, 63:198-203 (New York: Union Theological Seminary in the City of New York).
- BOOK REVIEWS: O'Donoghue, A. A., (1993) Post-use Review: Physics by Paul A. Tilper, American Journal of Physics, Am. J. Phys., **61**: 956-957
O'Donoghue, Aileen (2003) Origins by Tom Yulsman, Astronomy Magazine, 31, 6, p. 104
- POPULAR ARTICLES: O'Donoghue, Aileen A., "The Wilderness Above" (2010 --), regular column in *The Adirondac Daily Enterprise* daily newspaper (Saranac Lake, New York), (bi-monthly from November through April)
O'Donoghue, Aileen A., "Mountain Skies" (1999 -- 2002), regular column in *Adirondac* magazine, (bi-monthly, year-round)
- INVITED LECTURES: *The Songs of Ancient Electrons*, Toronto, Ontario, Annual Meeting of the Astronomical Society of the Pacific with the Royal Astronomical Society of Canada and the American Association of Variable Star Observers , June 1999
Seeking Understanding in an Expanding Universe, Benedictine College, Atchison, Kansas, Eighth Mary L. Fellin Lecture (on the Liberal Arts from a Feminine Perspective), October 2004
- AWARDS:** *Judge Francis Bergan Career Development Award in Astrophysics*, awarded by the Dudley Observatory, Schenectady, New York, for the 1993-1994 academic year.
Colorado Mountain College Alumnus of the Year, 2003, awarded by Colorado Mountain College, Glenwood Springs, Colorado
Priest Associate Professor of Physics, St. Lawrence University, 2006