

## 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 VLA<sup>1</sup>, 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.

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<sup>1</sup>National Radio Astronomy Observatory Very Large Array Radio Telescope

- PROFESSIONAL ORGANIZATIONS:** American Astronomical Society, Royal Astronomical Society of Canada, Sigma Pi Sigma ( $\Sigma\Pi\Sigma$ ), Astronomical Society of New York, Adirondack Public Observatory
- PROFESSIONAL SERVICE:** July 2002 – Treasurer, Astronomical Society of New York  
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:**
- REFEREED JOURNALS: 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  $\alpha$ 40 HI Source Catalog, its Characteristics and Their Impact on the Derivation of the HI Mass Function*, A.J., 2011, **142**, 170-198.
- 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., Butenhoff, 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 A., 2010, *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. Proc. ASP Annual Meeting 122, p. 466 (San Francisco:Astronomical Society of the Pacific).
- O'Donoghue, Aileen A., 2010, *Teaching Climate Change (in Astronomy 101)* in Earth and Space Science: Making Connections in Education and Public Outreach. Proc. ASP Annual Meeting 122, p. 355 (San Francisco:Astronomical Society of the Pacific).
- O'Donoghue, Aileen A., 2010, *Teaching Climate Change (in Public outreach)* in Earth and Space Science: Making Connections in Education and Public Outreach. Proc. ASP Annual Meeting 122, p. 43 (San Francisco: Astronomical Society of the Pacific).
- 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., "Mountain Skies" (1999 -- 2002), regular column in *Adirondac* magazine, (bi-monthly)
- 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