

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, New Mexico
- April 1981 **B.S. in Physics**, Fort Lewis College
Durango, Colorado
- June 1978 **A.A. in Science and Mathematics**, Colorado Mountain College
Glenwood Springs, Colorado
- POSITIONS:** 8/89 - **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, Classical Mechanics for junior physics majors
- 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, analyzing optical data from 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 for non-science students (with lab)
Laboratory for conceptual physics for non-science majors
Classical Mechanics for junior physics majors
Interdisciplinary First Year Program
- 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)
Socorro, New Mexico
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: American Astronomical Society, Sigma Pi Sigma, Astronomical Society of the Pacific, Royal Astronomical Society of Canada

RESEARCH INTERESTS: Extended Extragalactic Radio Sources, Radio jets, Clusters of Galaxies, Galaxies, Radio Astronomy, Optical Spectroscopy, Stellar Classification

PUBLICATIONS: 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.

REFEREED JOURNALS: 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.

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.

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**

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

MEETINGS PROCEEDINGS: 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).

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

POPULAR ARTICLES: O'Donoghue, Aileen A., "Mountain Skies" (1999 -- present), regular column in *Adirondac* magazine, (bi-monthly)

:

AWARDS: *Judge Francis Bergan Career Development Award in Astrophysics*, awarded by the Dudley Observatory, Schenectady, New York, for the 1993-1994 academic year.