

Gregory C. Sloan

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Education

- Ph.D. Physics** (Astrophysics Program), University of Wyoming 1992
Spatially Resolved 10 Micron Spectra of Circumstellar Material around Evolved Stars
Research advisors: Ron Canterna and Gary Grasdalen.
- B.A. Physics and Astronomy**, Northwestern University 1985

Research Experience

- Research Associate**, Cornell University 2001-present
Helped calibrate the Infrared Spectrometer on the *Spitzer Space Telescope*. Currently studying mass loss from stars and dust processing in Local Group galaxies, disks around young stars, atmospheres of cool stars, and brown dwarfs. Supervisor: Jim Houck.
- Senior Astronomer**, Boston College 2000-2002
Produced a publically accessible digital atlas of all full-scan spectra from the Short Wavelength Spectrometer on the *Infrared Space Observatory*. Developed a comprehensive system to classify spectra. Supervisor: Stephan Price.
- NSF International Research Fellow**, Australian Defence Force Academy 1997-1998
Studied deviations from spherical symmetry in dust shells around evolved stars using mid-infrared imaging. Advisor: Craig H. Smith.
- National Research Council Associate**, NASA Ames Research Center 1994-1997
Studied polycyclic aromatic hydrocarbons (PAHs) using narrow-band imaging and long-slit spectroscopy. Advisor: Jesse Bregman.
- Geophysics Scholar** and **Phillips Laboratory Scholar**, Air Force Phillips Lab. 1992-1994
Improved the Air Force Geophysics Lab. Array Detector Spectrometer (GLADYS). Developed a spectral classification system for circumstellar dust shells with data from the Low-Resolution Spectrometer aboard the *Infrared Astronomical Satellite*. Advisor: Stephan Price.
- Research Assistant**, University of Wyoming 1986-1990
Developed a data acquisition system for GLADYS at the Wyoming Infrared Observatory. Studied spatial variations in circumstellar dust emission. Supervisor: Gary Grasdalen.
- Summer Research Assistant**, Air Force Geophysics Laboratory 1987
Developed data reduction techniques for GLADYS. Supervisor: Paul LeVan.
- Research Aide**, Northwestern University 1983-1985
Helped compile catalogs of MK spectral classifications. Supervisor: William Buscombe.

Research Interests

Infrared spectroscopy of circumstellar dust in shells and disks.
Polycyclic aromatic hydrocarbons (PAHs) and related carbon-rich dust.
Infrared properties of cool stellar and sub-stellar atmospheres.

Grants and Fellowships

<i>Spitzer Space Telescope</i> observing awards, totalling \$290,000	2004-2010
National Science Foundation International Research Fellowship	1997-1998
National Research Council Fellowship	1994-1997
Geophysics and Phillips Laboratory Scholar Fellowships	1992-1994

Professional Associations

International Astronomical Union, American Astronomical Society.

Astronomy Service

Served on review panels for the NSF, *Spitzer Space Telescope*, and *UKIRT*. Refereed 17 papers for the *Astrophysical Journal*, *Astronomical Journal*, and *Astronomy & Astrophysics*. External examiner for one Ph.D. dissertation.

Teaching Experience

Visiting Lecturer , Cornell University Co-taught the introductory survey of planetary astronomy.	2009
Lecturer , Ithaca College Taught the introductory course on planetary astronomy.	2006-2007
Guest Lecturer , Cornell University Assisted Jim Houck with an introductory astrophysics course for engineers and science majors.	2004-2005
Senior Instructor , Virginia Polytechnic Institute and State University Lectured 150-200 students per semester in 2-3 parallel lectures in (1) general physics for engineers and scientists (with calculus) and (2) physics for biologists (without calculus).	1999-2000
Visiting Lecturer , University of New England, Australia Lectured and improved the introductory astronomy course for non-majors (second semester 1996, 1997, and 1998). Rewrote much of the 134-page study guide and developed several new laboratory exercises. The course included an external section, whose students attended a special one-week series of intensive lectures, experiments, and observing sessions.	1996-1998
Visiting Instructor , University of Montana Responsible for two concurrent summer courses for non-majors, one on planetary astronomy and the other on stellar and galactic astronomy.	1991
Instructor and Teaching Assistant , University of Wyoming Taught the eight-week summer survey course for non-majors (1986 and 1988). Lab. instructor and T.A. for introductory and general astronomy. Developed and wrote a lab manual for general astronomy (for majors). Lab. instructor and T.A. for general physics and physics for liberal arts majors.	1985-1991

Astronomy Public Outreach

Project Astro, both in the San Francisco Bay area and the Boston area. Extensive outreach at Cornell and other institutions, including workshops for teachers, enrichment courses at local schools, public lectures, star parties, and eclipse-viewing events.