

SHORT VITA SUZAN EDWARDS

Education

Ph.D., 1980 University of Hawaii, Astronomy
M.S., 1975 University of Hawaii, Astronomy
B.A., 1973 Dartmouth College, Physics

Honors

Magna Cum Laude, Phi Beta Kappa, 1973, Dartmouth College
NSF Faculty Award for Women Scientists and Engineers, 1991-96
L. Clark Seelye Chaired Professor at Smith College, 2010-

Employment

1992 to now Full Professor, Smith College
1986 to 1992 Associate Professor, Smith College
1980 to 1986 Assistant Professor, Smith College

Research overview

My research centers on elucidating the evolution of young stellar objects through the use of high resolution spectroscopy, especially the relation between disk accretion and mass outflow. The inner 1 AU of protoplanetary disks is the environment where terrestrial planets are formed, where disk accretion onto a magnetically active star establishes the final mass and initial angular momentum of the forming star, and accretion-driven winds/jets originate. Even in the nearest star formation environments, these regions are unresolved and can only be probed with spectra. Understanding the structure of the inner disk and its interaction with the stellar magnetosphere and radiation field is crucial to clarify the angular momentum evolution of these systems (how accreting stars are spun down, where winds/jets are launched) and the process by which the inner disk is cleared of gas and dust.

National Community Service

- 2011 NASA Sagan Fellowship Committee
- 2010 to 2013 NOAO Telescope Time Allocation, Galactic Panel Chair
- 2009 to 2010 National Academy of Sciences ASTRO2010 Astronomy and Astrophysics Decadal Survey (*New Worlds, New Horizons*), Science Frontiers Panel on Planetary Systems and Star Formation
- 2008 Spitzer Space Telescope Panel Chair and Time Allocation Committee, Cycle 5
- 2005 to 2008 Very Large Array Time Allocation Committee
- 2005 to 2008 NASA Keck Telescope Time Allocation Committee
- 2005 to 2007 Scientific Organizing Committee, IAU Symposium on Star-disk Interactions
- 2004 Hubble Space Telescope Panel Review
- 2000 Hubble Space Telescope Panel Review
- 1998 – 2001 National Academy of Sciences 2001 Astronomy and Astrophysics Decadal Survey (*Astronomy and Astrophysics in the New Millennium*), Education and Public Policy Panel
- 1997 to 2002 Member, Terrestrial Planet Finder Science Advisory Committee, NASA
- 1997 to 1999 Member, Education Board, American Astronomical Society
- 1997 Member, Scientific Organizing Committee, NGST Science Workshop
- 1995 to 1997 Member, Task Group on Space Astronomy and Astrophysics, National Academy of Sciences
- 1995 to 1996 Scientific Organizing Committee, IAU Symposium on HH Flows and Birth of Low Mass Stars
- 1994 to 1997 Co-Chair, Education Policy Board, American Astronomical Society
- 1993 to 1994 Chair, Annenberg Prize Committee, American Astronomical Society
- 1992 to 1994 Chair, Education Committee, American Astronomical Society
- 1992 to 1994 Chair, Education Advisory Board, American Astronomical Society
- 1992 to 1995 Panelist, NASA Origins Program
- 1992 to 1993 Scientific Organizing Committee, Eighth Cambridge Workshop on Cool Stars, Stellar Systems, Sun
- 1991 to 1997 Panelist, National Research Council, Space Sciences Panel
- 1991 to 1994 Councilor, American Astronomical Society

- 1991 to 1993 NOAO Bright Time Telescope Allocation Committee
- 1989 to 1991 National Academy of Sciences 1991 Astronomy and Astrophysics Decadal Survey (*Decade of Discovery in Astronomy and Astrophysics*), Optical Panel
- 1988 to 1989 Scientific Panel, NOAO 8m Proposal Committee
- 1986 to 1988 IPAC Proposal Review Panel
- 1986 to 1988 FCRAO Telescope Time Allocation Committee

Smith College Service

- Chair, Astronomy Department
- Chair, Five College Astronomy Department
- Chair, Five College Astronomy Senate
- Chair, Five College Fellows Committee
- Committee on Tenure and Promotion
- Science Planning Committee
- Science Computing Committee
- Presidential Search Committee
- Chair, Advisory Committee on Faculty Appointments
- Board of Admissions

50 Publications in Refereed Journals, 4522 Citations as of March 2011

Significant Publications

1. *Characterizing the IYJ Excess Continuum Emission in T Tauri Stars*, Fischer, W., Edwards, S., Hillenbrand, L. and Kwan, J. 2011, ApJ, 730, 73
2. *Redshifted Absorption at He I 10830 as a Probe of the Accretion Geometry of T Tauri Stars*, Fischer, W., Kwan, J., Edwards, S. and Hillenbrand, L. 2008; ApJ, 687, 1117,
3. *Modeling T Tauri Winds from Helium 10830 Profiles*, Kwan, J., Edwards, S. and Fischer, W. 2007; ApJ, 567, 897
4. *Probing T Tauri Accretion and Outflow with 1 Micron Spectroscopy*, Edwards, S., Fischer, W., Hillenbrand, L. and Kwan, J. 2006; ApJ 646, 319
5. *Going Slitless: Images of Forbidden Line Emission Regions of Classical T Tauri Stars Observed with the Hubble Space Telescope* Hartigan, P., Edwards, S. and Pierson, R. 2004; ApJ 609, 276
6. *Helium Emission from Classical T Tauri Stars: Dual Origin in Magnetospheric Infall and Hot Wind*, Beristain, G., Edwards, S. and Kwan, J. 2001, ApJ, 551, 1037.
7. *Spectroscopic Probes of the Inner Disk and the Star-Disk Interface*, Najita, J., Edwards, S., Basri, G., and Carr, J. 2000, Protostars and Planets IV, ed. V. Mannings, A. P. Boss and S. S. Russell (Tucson: University of Arizona Press), p. 457.
8. *Permitted Iron Emission Lines in the Classical T Tauri Star DR Tauri*, Beristain, G., Edwards, S. and Kwan, J. 1998, ApJ, 499, 828.
9. *Disk Accretion and Mass Loss From Young Stars* Hartigan, P., Edwards, S. and Ghandour, L. 1995, ApJ, 452,736.
10. *Spectroscopic Evidence for Magnetospheric Accretion in Classical T Tauri Stars*, Edwards, S., Hartigan, P., Ghandour, L. and Andrulis, C. 1994, AJ, 104, 1056.
11. *Angular Momentum Regulation in Low Mass Young Stars Surrounded by Accretion Disks*, Edwards, S., Strom, S., Hartigan, P., Strom, K., Hillenbrand, L., Herbst, W., Attridge, J., Merrill, M., Probst, R., and Gatley, I. 1993, AJ, 106, 372.
12. *Energetic Mass Outflows From Young Stars*, Edwards, S., Ray, T., and Mundt, R. 1993, Protostars and Planets, III, editors E. Levy and J. Lunine, (University of Arizona Press, Tucson), pp.567-602.
13. *Forbidden Line Emission and IR Excesses in T Tauri Stars: Evidence for Accretion-Driven Mass Loss?* Cabrit, S., Edwards, S., Strom, S., and Strom, K.M. 1990, ApJ, 354,687
14. *Forbidden Line and H Alpha Profiles in T Tauri Star Spectra: A Probe of Anisotropic Mass Outflows and Circumstellar Disks*, Edwards, S., Cabrit, S. Strom, S.E., Heyer, I. and Strom, K.M. 1987, ApJ, 321,473

PhD Thesis Advisor: William Fischer 2008, Georgina Beristain 2000

PhD thesis committee: Irena Stojimirovic 2007, James Muzerolle 2000, Michael Meyer 1996, Lynne Hillenbrand 1995, Diane Dutkevitch 1995, Alan Welty, 1991, Luis Salas-Casales 1990, Sylvie Cabrit (*Ecole Normale Supérieure/IAP*) 1988

Undergraduate Honors Thesis Advisor: *Elizabeth Jensen 2007, Adria Updike 2003, Jessica Bonjorni 2000, Cathy Andrulis 1992, Louma Ghandour 1989, Ingeborg Heyer 1985*; undergraduate advisor to ~40 Astronomy majors

Recent Grants: *NASA Origins, HST*