

**Deborah K. Scherrer**  
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Deborah Scherrer is currently Coordinator of the Stanford Solar Center, the education and public outreach arm of the Solar Observatories Group at Stanford. Group science projects include partnering in the Center for Integrated Space Weather Modeling (CISM) sponsored by NSF, the MDI instrument on NASA's SOHO solar spacecraft, and the Helioseismic Imager Instrument for NASA's upcoming Solar Dynamics Observatory mission.

Scherrer's science education work includes projects such as developing the Space Weather Monitors, instruments designed to monitor ionospheric disturbances caused by solar activity; a collaboration with Stanford's Haas Center for Public Service to train undergraduates in science education and outreach; collaborating with the Lawrence Hall of Science to develop a solar planetarium program for small interactive planetaria; personally developing websites to support and enhance NASA education programs; hosting and arranging camps and workshops for under-served middle school students; being part of ASP's Project Astro; and developing and running for 15 years a 4H Project in Astronomy.

Before coming to Stanford to work as a Science Education Professional, Scherrer had over 10 years volunteer experience working with astronomy education in the elementary and middle schools. She also has had an extensive career in the High Tech industry as a Computer Scientist.

**Employment History**

- **Coordinator, Stanford Solar Center      Stanford U.      2002-present**  
In 2002, Scherrer returned to Stanford to pursue her passion for astronomy outreach and education.
- **Manager/Software Developer      Transmeta Inc.      1998-2002**  
A brief 4-year stint at one of the most interesting and dramatic of the high tech startups in Silicon Valley. Transmeta developed an Intel-like chip with 2/3rds of its capabilities accomplished in software. Scherrer was a member of the Software Department, eventually managing the Software Automation Group.
- **Originator, Stanford Solar Center      Stanford U.      1996-1998**  
Scherrer originated and developed the Stanford Solar Center, its website and activities, into the education and public outreach arm of the Solar Observatories Group.
- **President      mt Xinu Inc.      1984-1996**  
A spin-off from UC Berkeley, mt Xinu was the first private company to sell and support the newly-introduced Unix operating systems. Starting as a member of the technical staff, Scherrer eventually became President.

- **President** Carousel Microtools **~ 1982-1986**  
A small software company developing and marketing Unix-like software tools for the PC market. This was in addition to Scherrer's regular "day job."
- **Scientific Programmer** Crimean Astrophysical Observatory **Summer 1975**  
Developed software programs for analysis of solar data.
- **Computer Scientist** Lawrence Berkeley Lab **1972-1984**  
Research scientist for the Computer Sciences Research Group. Projects included developing a virtual operating system which provided Unix capabilities on non-Unix systems.

### **Professional Organization & Volunteer Experience**

- **Secretary** of the **Space Physics and Aeronomy Education (SPA) Committee of the AGU**, 2003 to present.
- Represents the IEEE Computer Society on the **Computing Sciences Accreditation Board (CSAB)**, now a part of ABET. ~2000 to present
- Served as **Vice President of Technical Activities** and as **Vice President of Educational Activities** for the **IEEE Computer Society**, a professional association with 100,000 members worldwide.
- **President and Board of Directors, Usenix Association**, the Unix operating system professional association
- **Editorial boards** of the "Advanced Computing Systems" journal, IEEE Computer Society's "Computer" magazine, "Unix Review", and "Unix World" magazines.
- Chaired various conferences and workshops

### **Education and Honors**

- Completed undergraduate and graduate studies at **UC Berkeley**
- Received the **Usenix Lifetime Technical Achievement Award**, 1996.
- **Unix Systems Laboratory** (previously Bell Laboratories) "**Academic Driver**" award
- Honorary Lifetime member of Usenix, the Unix technical association
- Member of ASP's **Project Astro** and received its very first "**Best Portolio**" award
- Earned an **Honorable Mention in Sky & Telescope's Nationwide Astronomy Day Competition**
- Member of the American Geophysical Union, the Astronomical Society of the Pacific, the IEEE and the IEEE Computer Society
- An IEEE Computer Society Golden Core member (honorary); received an IEEE Millennium Medal and numerous IEEE Computer Society awards.
- Phi Kappa Phi Honor Society
- Received the Jean P. Yeager Memorial Prize in Folklore.

### **Selected Publications**

Hall, Dennis, Deborah K. Scherrer, Joseph Sventek, "A Virtual Operating System," Communications of the ACM, Vol. 23, No. 9, September 1980.

Scherrer, Deborah K., "Using Solar Science to Inspire: The Education and Public Outreach Projects of the HMI Instrument on NASA's Solar Dynamic Observatory (SDO)"; poster AGU 2005 Joint Assembly; 23-27 May 2005; New Orleans, LA

Scherrer, D., K. Beck, C. Morrow, "Solar Astronomy: Science in Service to Education;" poster session, AGU Fall Conference, 2003.

Scherrer, Deborah, Ray Mitchell, William Clark, Richard Styner, Philip Scherrer, Umran Inan, Morris Cohen, Justin Tan, Shannon Lee, Sharad Khanal, Scott Winegarden, Paul Mortfield; "Designing Sudden Ionospheric Disturbance Monitors -- a Unique Collaboration Between Scientists and Educators"; Presentation at AGU 2005 Joint Assembly 23-27 May 2005, New Orleans, LA

Scherrer, Deborah K. and Philip H. Scherrer, "An Experiment in the Computer Analysis of Folk Music," *Journal of American Folklore*, Vol. 84, No. 332, Apr-June 1971, pp. 230-241.

Scherrer, Deborah, Ray Mitchell, Morris Cohen, "Connecting the Earth to the Sun: Students Monitor Solar Disturbances to Earth's Ionosphere"; poster presentation at North American IHY Community Science Planning Workshop, Boulder, CO; 16-18 Feb, 2005

Scherrer, Deborah K. et al. "The Software Tools - Unix-like Capabilities on non-Unix Systems," *Byte magazine*, November 1983.

Scherrer, Deborah K. and Vance Vaughan, "The Mach 3.0 Operating System", *UNIX Review*, 1992.

Scherrer, P. H., R. S. Bogart, R. I. Bush, T. L. Duvall, Jr., J. T. Hoeksema, A. Graps, A. G. Kosovichev, D. K. Scherrer & J. Schou, "Observations of Solar Oscillations with the Michelson Doppler Imager on SOHO," in *Proc. IAU Symposium 185: New Eyes to See Inside the Sun and Stars*, 21, 1997.