Patricia H. Reiff
Project Role: Education and Public Outreach

Institution: Rice University

Education:
B.S. in Physics, Oklahoma State University, 1971
M.S. and Ph.D. in Space Physics and Astronomy, 1974, 1975

Professional Background:

2000 - present	Director, Rice Space Institute and Professor, Dept of Physics and Astronomy
1996 - 2000	Chair, Department of Space Physics and Astronomy
1992 - 2000	Professor, Dept of Space Physics and Astronomy
1976 - 1992	Research Faculty positions, Rice University
1975 - 1976	NAS/NRC Resident Research Associate, MSFC

Relevant Experience:
Prof. Patricia Reiff has been involved in space plasma physics research for over thirty years, with interests in magnetospheric convection, magnetosphere-ionosphere coupling, plasma particle acceleration mechanisms, and solar wind control of the magnetosphere and ionosphere. She received her Ph.D. analyzing Apollo plasma data, and was an NRC Fellow in 1975-76 analyzing Atmosphere Explorer data. She was a Co-I on the Dynamics Explorer and Polar Missions, and is a Co-I for both science and public outreach for the "IMAGE" spacecraft, for the "PEACE" electron spectrometer on the ESA "Cluster II", and the MMS mission, as well as working on EPO for the Center for Integrated Space Weather Modeling. She has served as Director for public education and teacher enhancement projects for over 16 years. Her "Space Update" software has been used by over a million visitors at over 10 museums, and together with "Earth Update" and "Space Weather" has been distributed to over 80,000 educators. Both those CD's received the highest rating from NASA external review panels. Her project "Museums Teaching Planet Earth" creates full-dome digital planetarium shows, teaching 3-D Earth science information by flying the audience through it, and her latest project "Immersive Earth" has created a portable planetarium system to teach Earth and Space Science through immersive digital theater. She has over 70 referreed publications in journals and book sections, and has served as Editor or Associate Editor for **EOS**, **Journal of Geophysical Research**, **Reviews of Geophysics** and serves on the editorial board of **Space Weather**. She has served on advisory committees for the National Science Foundation, NASA, the National Academy of Science, the AAU, Goddard Space Flight Center, UCAR, and Los Alamos National Laboratory. She has served as Chair of the Council of Institutions of the Universities Space Research Association and serves on the SPA Public Education Committee for the AGU. She is a member of ΣΠΣ, ΠΚΠ and ΣΞ and has numerous awards, including being named as one of Houston's "Women on the Move" in 1990. She was elected to the Cosmos Club in 1992, was selected as a Fellow of the American Geophysical Union in 1997, received the "Aerospace Educator Award" from Women in Aerospace in 1999 and the Service Award from NARS in 2004. She received NASA "Group Achievement" awards for the IMAGE and GGS missions, and was an organizer for the World Space Congress in 2002. Listed in *American Men and Women of Science* and *Who's Who,* she has served as President of the Citizens' Environmental Coalition and is a consultant for the Houston Museum of Natural Science. She has led many teacher workshops and scientific tours. In addition to training ten PhD's, she created a "Master of Science Teaching" degree, with six alumni as of 2005.

Selected Recent Publications:
Sumners, C and P. H. Reiff, "Force 5: Comparing the Great Storms on Earth and in Space", in Proceedings of the 13th Symposium on Education, J1.7, American Met. Soc., ams.confex.com/ams/pdfpapers/67058.pdf, (2004).

Reiff, P.H., D. Garay, and A. Furitsch, "Using Ham Radio to Teach Space Weather", in Proceedings of the 13th Symposium on Education, J1.7, American Met. Soc., ams.confex.com/ams/pdfpapers/67048.pdf, (2004).

Sumners, C. and P. H. Reiff, "Night of the Titanic", planetarium show, Houston Mus. of Natural Sci, (2002).

Reiff, P. H., "Magnetospheric Convection", in *"Encyclopedia of Astronomy and Astrophysics"*, Macmillan/Grove Press, New York, (2000)

Goldstein, J., R. A. Wolf, B. R. Sandel, and P. H. Reiff, Electric fields deduced from plasmapause motion in IMAGE EUV images, *Geophys. Res. Lett.*, *31*, L01801, doi:10.1029/2003GL018797, (2004).

Reiff, P. H., “Plasma Entry, Transport and Loss in the Magnetosphere and Ionosphere”, in *Sun-Earth Plasma Connections, Geophys. Monogr. Ser., 109*, ed. J. Burch, R. Carovillano, and S. Antiochos,149-59, (1999).