

Education:

Ph.D.	Geophysics and Space Physics	Univ. Calif., Los Angeles	5/18/89
	Dissertation title: <i>On the Large-Scale Distribution of Magnetospheric Currents and Thermal Plasma: Results from Magnetic Field Models and Observation</i> (Thesis advisor, Margaret G. Kivelson; PhD committee members: Christopher T. Russell, George L. Siscoe, and Maha Ashour-Abdalla)		
M.S.	Geophysics and Space Physics	Univ. Calif., Los Angeles	3/22/85
B.A.	Astronomy (with distinction) and Physics with a minor in Mathematics (magna cum laude)	Boston University	5/15/83
	Senior distinction thesis title: <i>A Simulation of Equatorial Airglow Depletions as Viewed by an All-Sky Intensified Camera System</i>		

Professional Employment:

Professor of Astronomy	Department of Astronomy Boston University, Boston, MA	9/04 – present
Chairman	Department of Astronomy Boston University, Boston, MA	7/02 – 7/05
Associate Professor of Astronomy	Department of Astronomy, and Center for Space Physics, Boston University, Boston, MA	9/99 – 8/04
Science Consultant	Physical Sciences, Inc.	1997 - 2004
Assistant Professor of Astronomy	Department of Astronomy, and Center for Space Physics, Boston University, Boston, MA	1/94 – 8/99
Senior Member of the Technical Staff (Casual Status)	Space and Environment Technology Center, The Aerospace Corporation, El Segundo, CA	4/94 - present
Senior Member of the Technical Staff	Space and Environment Technology Center, The Aerospace Corporation, El Segundo, CA	1/93 - 4/94
Member of the Technical Staff	Space and Environment Technology Center, The Aerospace Corporation, El Segundo, CA	3/89 - 1/93
Graduate Research Assistant	Institute of Geophysics and Planetary Physics University of California, Los Angeles, CA	9/87 - 3/89
Office of Naval Research Graduate Fellow	Department of Earth and Space Science, University of California, Los Angeles, CA	9/83 - 8/87

Awards and Honors:

- 2002 Recipient of Frank and Lynne Wisneski Award for Excellence in Teaching
- 2000 Recipient of NASA Group Achievement Award, Sun-Earth Connection 2000 Roadmap Team
- 1998 Recipient of NASA Group Achievement Awards for POLAR Investigations
- 1994 Recipient of National Science Foundation Young Investigator Award
- 1993 Editor's Citation for Excellence in Refereeing - *Geophysical Research Letters*
- 1990 Editor's Citation for Excellence in Refereeing - *Journal of Geophys. Res. - Space Physics*
- 1988 Outstanding Student Paper Award, Solar Planetary Relations Section,
1988 American Geophysical Union Fall Meeting
- 1983 Boston University Astronomy Alumni Student Award
- 1983 Boston University College Prize for Excellence in Astronomy

University Activities:

Committee Service -

- Member of the Natural Sciences Curriculum Committee of the College and Graduate School of Arts and Sciences - 1994 to 1997 (Committee Chair of 1996-97 term)
- Member, Undergraduate Research Opportunity Program Faculty Advisory Committee – 2000 – 2002
- Member of the Center for Energy and Environmental Studies Internal Review Committee – 2000 - 2001
- Member of the College of Arts and Sciences Academic Policy Committee – Fall 2000 to Spring 2003 (Committee Chair of AY 2000 and 2001 terms)

Chairmanships and Directorships -

- Director of Undergraduate Studies, Department of Astronomy – Fall 1998 to Fall 2000
- Chairman, Department of Astronomy – Summer 2002 to Summer 2005
- Member, Executive Committee of the Center for Integrated Space weather Modeling (CISM)
And CISM co-Director for Model Validation and Metrics, 2003 to present

Faculty Advising -

- Faculty Advisor to the undergraduate Boston University Astronomical Society - 1994 to 1998, 2000 to 2002; 2004 to 2007
- Faculty Advisor to the undergraduate Planetary and Space Science degree program - 1994 to 1998, 2000 to 2001

Faculty advisor of Astronomy Department undergraduates and research supervisor for many, including the following selected undergraduates who completed Senior Work for Distinction projects:

1. Dr. Scott Thompson (1997): "Multi-point Analysis of High Latitude Dayside Auroral Particle Precipitation: A Case Study of "Staircase" Signatures"
2. Dr. Kathryn Fishbaugh (1998): "On the Origin of Polar Energetic Particles"
3. Ms. Shannon McCurdy (2004): "Magnetic Variability in Earth's Magnetotail Plasma Sheet"
4. Mr. Asher Pembroke (2005): "Validating CISM Solar Wind Models: Using the High Speed Enhancement Index"
5. Ms. Amanda Robison (2008): "Multipoint Analysis of Auroral Field-Aligned Currents"

PhD research supervisor of:

1. Professor Anders Jorgensen (1998): "Global dynamics of the hot plasma in the inner magnetosphere: Energetic neutral atom (ENA) and in situ measurements"
2. Dr. Karen (Hirsch) Lewis (2000): "Assessing plasma sheet convection models using off-equatorial plasma sheet observations"
3. Dr. Athanasios Boudouridis (2001): "Spatial and temporal aspects of high-latitude particle precipitation: A remote diagnostic of magnetospheric regions and processes"
4. Dr. Timothy Guild (2006): "Comparative Studies of Multi-Scale Convective Transport through the Earth's Plasma Sheet"
5. Dr. Chia-Lin Huang (2007): "Structure and Dynamics of the Inner Magnetosphere and Their Effects on Radiation Belt Electrons"

Currently advising six PhD candidates, including three senior graduate students whose expected PhD completion dates and provisional thesis titles are listed below:

1. Ms. Nicholeen Viall (2009): "On the characteristics, consequences, and origins of solar wind density structures"
2. Mr. Anthony Case (2010): "The ambient solar wind's effect on interplanetary coronal mass ejections transit times and solar energetic particles"
3. Mr. Andrew Jordan (2010): "Multipoint, high time resolution galactic cosmic ray variability associated with structures in the interplanetary medium"

Professional Activities:

Society Memberships -

Supporting Member of the American Geophysical Union (AGU)

Advisory Committees -

Member of 1991 NSF GEM Program Advisory Panel

Member of NSF GEM Steering Committee - 1993 to 1997

Member of National Academy of Science (NAS), Space Studies Board (SSB) / Committee on Solar and Space Physics (CSSP) - 1994 to 1997

Member of the NASA Geospace Multiprobes Science Definition Team - 1996 - 1997

Member of the NASA Magnetospheric Multiscale Science Definition Team - 1997-1998

Chair of the NOAA NGDC Solar-Terrestrial Division Ad Hoc Advisory Panel, 1997-1998

Member of the NASA New Millennium Deep Space 5 Science Definition Team, 1998 to 1999

Member of the NASA Office of Space Science Roadmap Committee - 1998 to 1999
Chair of the NASA Magnetospheric Constellation Science and Technology Definition Team - 1998 to present
Member of the NASA Office of Space Science Geoscience Management Operations Working Group – October 2000 to 2002
Member of the NASA New Millenium Project ST-7 Study Team – 2001
Member NAS/SSB Decadal Survey Panel on Solar-Wind Magnetospheric Interactions – 2001 to 2002
Member of the NASA Office of Space Science Sun-Earth Connection Advisory Subcommittee – 2002 to 2005
Member of the NASA Earth-Sun System Subcommittee – 2005
Member of the NASA Living with a Star Management Operations Working Group – 2006 to 2008
Member of the NASA LWG Geospace Probes Science Working Group - 2006 to present
Member of the Heliophysics Subcommittee (HPS) of the NASA Advisory Council (NAC) – 2008 to present

Editorial and Referee Service –

Associate Editor of the Journal of Geophysical Research - Space Physics - 3/91 to 3/94
Member of the Geophysical Research Letters Senior Editor Search Committee - 1996 -1997
Editor of the *Advances in Space Research* refereed publication resulting from the COSPAR2000 D3.3 Session – 2000 – 2002
Co-editor of *Inner Magnetosphere Interactions*, Proceedings of the 30th Anniversary Yosemite Workshop, AGU monograph, 2004 to 2005.
Referee of papers submitted to the Journal of Geophysical Research, Geophysical Research Letters (both US and European editors), Spaceweather Journal, Nature, Annales Geophysicae, Reviews of Geophysics, Journal of Spacecraft and Rockets, Space Science Reviews, Planetary and Space Sciences, EOS, Advances in Space Research, and Physics and Chemistry of the Earth
Reviewer of proposals submitted to the National Aeronautics and Space Administration (NASA), the National Science Foundation (NSF), the Cottrell Science Awards Program, the National Research Council (NRC), Los Alamos National Laboratory (LANL) Institute of Geophysics and Planetary Physics, and the International Science Foundation (ISF), Member of the College of Reviewers for the Canada Research Chairs Program

Scientific Meeting Organization –

Member of the 1993 and 1996 NASA/NSF/SWRI Yosemite Conference Program Committee (Solar System Plasma Physics: Delineating the Space and Time Domains; Global Geospace Science)
Chair of NSF GEM Magnetotail/Substorm Campaign Working Group 2 - 1993 to 1997
NSF GEM Biannual-Workshop Coordinator - 1994 to 1997
Member of the Scientific Programme Committee, International Symposium on Solar-Terrestrial Coupling Processes - 1996-1997
Main Scientific Organizer for Session D3.3 (Magnetic Storms) of the Committee on Space Research (COSPAR) - 1999

Member of the Program Committee of the 6th International Conference on Substorms (ICS-6)- 2000 – 2002

Session chair for numerous GEM, COSPAR, AGU general and topical meetings

Convener of special sessions at AGU meetings including a session at the Fall 2005 meeting entitled “Fundamentals of Charged Particle Acceleration in Planetary Magnetospheres” and the recent Union session at the Fall 2008 meeting entitled “The Van Allen Radiation Belts and Their Impact on Modern Space Science”

Mission Participation –

Principal- and Co-Investigator on NASA, NSF and DOD theory, analysis, hardware, and mission grants

Co-Investigator on the NASA ISTP/GGS/POLAR - CEPPAD and CAMMICE energetic particle experiments (design and development of the Imaging Proton Spectrometer) - 1990 to present

Affiliated member of the international science team of the Danish Oersted Satellite Project - 1994 to present

Principal Investigator on the USAF/DARPA/NASA University Nanosatellite Constellation Pathfinder Satellite Mission – 1999 to 2002

Co-Investigator on the NASA MMS mission – 2004 to present

Principal Investigator on the NASA Lunar Reconnaissance Orbiter, Cosmic Ray Telescope for the Effects of Radiation (CRaTER) instrument – 2004 to present

Principal Investigator on the NASA Living with a Star Radiation Belt Storm Probes Energetic Particle, Composition, and Thermal Plasma instrument suite - 2006 to present

Other Education/Outreach Activities –

Member of the NSF Partnerships Advancing the Learning of Math and Science (PALMS) Advisory Committee to Reading Public Schools - 1998 to 2001

External Member of Chelsea Middle School Faculty Team for Science Curriculum Development, 1998 to 2001

Coach for the Coolidge Middle School Science Olympiad Team, Reading, MA - 1999 to 2005

Instructor CISM Space Weather Summer School 2001-present