

PAUL B. DUSENBERY

CURRICULUM VITAE

BIRTHPLACE AND DATE

Spokane, Washington; September 16, 1949

EDUCATION

B.A., Physics, Whitman College, 1972
M.A., Physics, University of New Hampshire, 1975
Ph.D., Physics, University of New Hampshire, 1978

POSITIONS HELD

October 1992 - present	Executive Director, Space Science Institute, Boulder, CO
March 1982 - present	Guest Investigator, Space Environment Center, NOAA/ERL, Boulder, CO
March 1990 - August 1994	Senior Research Associate and co-director of the Space Plasma Physics Group, Department of Astrophysical, Planetary and Atmospheric Sciences, University of Colorado, Boulder, CO
September 1989 - June 1991	Program Director, Magnetospheric Physics Program, Division of Atmospheric Sciences, National Science Foundation, Washington, DC
March 1982 - March 1990	Research Associate, Department of Astrophysical, Planetary, and Atmospheric Sciences, University of Colorado, Boulder, CO
March 1980 - February 1982	NRC - NOAA Resident Research Associate, Space Environment Lab, NOAA/ERL, Boulder, CO
August 1978 - February 1980	Advanced Study Program Postdoctoral Fellow, National Center for Atmospheric Research, Boulder, CO
1977 - 1978	Graduate Associate, University of New Hampshire
1976 - 1977	Research Assistant, University of New Hampshire
1972 - 1975	Teaching Assistant, University of New Hampshire

PROFESSIONAL SOCIETIES

American Geophysical Union
American Astronomical Society
Division of Planetary Science
National Science Teachers Association
Association for Supervision and Curriculum Development

PROFESSIONAL REVIEWER

Proposal Reviewer, National Science Foundation
Proposal Reviewer, National Aeronautics and Space Administration
Proposal Reviewer, National Research Council
Journal of Geophysical Research
Geophysical Research Letters
Journal of Plasma Physics

FIELDS OF INTEREST

Paul received his B.A. in Physics from Whitman College in 1972 and his M.S. and Ph.D. in Physics in 1975 and 1978, respectively, from the University of New Hampshire specializing in space plasma physics. In September of 1989, He became the Program Director of the Magnetospheric Physics Program at the National Science Foundation. He remained in that position until June of 1991, when he returned to the University of Colorado as a Senior Research Associate. In October 1992, Paul was appointed Executive Director of the Space Science Institute, a nonprofit research and education organization, located in Boulder, Colorado.

Paul has been active in solar-terrestrial physics research (e.g. broadband turbulence in boundary layers and nonlinear dynamics of charged particles in current sheets). He has served on many research and education committees and agency review panels. He has led the development of major national traveling exhibitions: *Electric Space*, *Space Weather Center*, *MarsQuest*, *Destination Mars*, *Alien Earths*, & the recently funded *Giant Worlds*. He also led the effort to develop an outdoor exhibit at the 29th Street Mall in Boulder, Colorado called *The Planets*. In addition, he has developed innovative workshops to help scientists and engineers engage more effectively in all facets of education and has participated in numerous professional development workshops for both formal and informal educators.

RESEARCH ACTIVITIES

Member, Executive Committee of the Front Range Branch of the American Geophysical Union, 1987 - 1989.

Member, Steering Committee for the 1988-1989 Front Range American Geophysical Union Meetings.

Member, GEM (Geospace Environment Modelling) Steering Committee, National Science Foundation, Washington, DC, September, 1989 - August, 1991.

Member, NASA Theory Panel, Strategy-Implementation Study for Future Space Physics Missions, Baltimore, MD, January, 1990; Bethesda, MD, June, 1990.

Member, Program Review Panel for the Institute for Space and Terrestrial Science, Toronto, Ontario, February, 1990.

Member, San Diego Supercomputer Center Allocation Committee, San Diego, CA, July, 1990 - March, 1992.

Member, NASA Review Panel for the Guest Investigator Program, Greenbelt, MD, August, 1990.

Member, Education Committee, Space Physics and Aeronomy Section of the American Geophysical

Union, December, 1990 - present.

Member, Organizing Committee, 1992 STEP Symposium, January, 1991 - June, 1991.

Co-Convener, special session on “Particle Chaos” at the Spring American Geophysical Union Meeting, May, 1991.

Member, Organizing Committee, American Geophysical Union Chapman Conference on Micro and Meso Scale Phenomena in Space Plasmas, Kauai, Hawaii, February 17-21, 1992.

Member, NASA Review Panel for the Magnetospheric Physics Program, Washington, DC, November, 1992.

Co-Convener, special session on “Structure and Dynamics of Magnetospheric Boundary Layers” at the Fall American Geophysical Union Meeting, December, 1992.

Co-Convener, special session on “Space Weather” at the fall American Geophysical Union Meeting, December, 1996

EDUCATION & OUTREACH ACTIVITIES

Chair, Science Fair Committee at Heatherwood Elementary School, September 1991 - February 1992.

Co-Chair, Organizing Committee, Precollege Education Workshop for Space Scientists, Washington, DC, April, 1992.

Member, SAGE (Science Awareness through Geoscience Education) Partners for Excellence Program, Geological Society of America, August, 1992 – July 1997.

Member, CARE (Career Awareness and Resource Education) Program, National Institute of Standards and Technology, Department of Commerce, August, 1992 – July 1997.

Participant, Earth Science Network Meeting, Boulder, CO, October, 1992.

Member, Science Fair Committee at Heatherwood Elementary School, September 1992 - February 1993.

Participant, National Science Resource Center’s Working Conference on Precollege Science Education for Scientists and Engineers, San Francisco, CA, March 22-26, 1993.

Participant, National Science Resource Center’s Elementary Science Leadership Institute, Washington, D.C., July 25-30, 1993.

Member, Education and Human Resource Committee, American Geophysical Union, April, 1991 - July, 1994.

Member, Rocky Mountain Discovery Center Steering Committee, July 1993 – June 1997

Member, Boulder Valley State Systemic Initiative Planning Committee, March 1994 – May 1999.

Chair, Informal Science Committee, Space Physics and Aeronomy Section of the American Geophysical Union, May, 1990 - 1994.

Chair, Public Information Committee, Space Physics and Aeronomy Section, American Geophysical Union, May 1994 – July 1996

Participant, NASA's Linking Leaders for Systemic Reform Workshop, Cleveland, OH, October 22-31, 1996.

Co-Convener, Planning Meeting for one day education workshops, with Astronomical Society of the Pacific, February, 1997.

Co-Convener, special session on "Education and Outreach: Activities and Challenges, Spring American Geophysical Union, 1997.

Member, Algebra Task Force, Boulder Valley School District, March 1999 – May 2001.

Chair, Colorado Science Center's Board of Directors, May 2000 – 2004.

Member, Advisory Committee, International Heliophysical Year, 2004 - present

GRANTS, AWARDS, AND FELLOWSHIPS

Dusenbery, P. B., Advance Study Program Postdoctoral Fellow, NCAR, 1978.

Dusenbery, P. B., National Research Council Resident Research Associate, NOAA/SEL, 1980.

Dusenbery, P. B., Wave Generation in the Plasma Sheet Boundary Layer, Air Force/NASA, 1982.

Speiser, T. W. and Dusenbery, P. B., Current Sheet Dynamics and Auroral Wave-Particle Interactions, NSF, 2 years, 1982-1984. Funding: \$74,500.

Dusenbery, P. B., Quantitative Investigation of the Effects of Plasma Turbulence in the Structure of Auroral Particle Precipitation, NOAA, 1 year, 1982-1983. Funding: \$35,230.

Speiser, T. W. and Dusenbery, P. B., Current Sheet Dynamics and Auroral Wave-Particle Interactions, NSF, 4 years, 1984-1988. Funding: \$200,100.

Dusenbery, P. B. and T. W. Speiser, Wave Generation and Particle Transport in the Plasma Sheet Boundary Layer, NASA, 3 years, 1986-1989. Funding: \$122,032.

Dusenbery, P. B. and T. W. Speiser, Magnetotail Dynamics and Auroral Wave-Particle Interactions, NSF, 4 years, 1987-1991. Funding: \$210,000.

Speiser, T. W., P. B. Dusenbery, and J. R. Cary, Magnetotail Particle Dynamics and Transport, NASA, 7 years, 1987-1994. Funding: \$469,000.

Dusenbery, P. B. and T. W. Speiser, Auroral Ion Heating and Wave Turbulence in a Multi-Ion Plasma, NASA, 2 years, 1989-1990. Funding: \$50,000.

Speiser, T. W., P. B. Dusenbery, I. Doxas, and R. F. Martin, Jr., Magnetotail Dynamics: Plasma Wave Turbulence and Particle Chaos, NSF, 3 years, 1990-1993. Funding: \$375,000.

Speiser, T. W., P. B. Dusenbery, and G. R. Burkhart, A Satellite Study of Chaotic Processes in the Current Disruption Region, NASA, 2 years, 1991-1993. Funding: \$119,995.

Dusenbery, P. B., Our Sun-Earth Environment: An Exhibit Project for the Space Sciences, NSF/AGU, 3 years, 1992-1995. Funding: \$214,537.

Dusenbery, P. B. and T. W. Speiser, Magnetotail Dynamics: Plasma Wave Turbulence and Particle

Chaos, NSF, 3 years, 1993-1996. Funding: \$510,000.

Dusenbery, P. B., Precollege Science Education Workshop for Space Sciences, NASA, 3 years, 1994-1997. Funding: \$157,567.

Dusenbery, P. B., Electric Space: Exploring Our Plasma Universe, NSF, 2.5 years, 1994-1997. Funding: \$680,542.

Dusenbery, P. B., MarsQuest, NSF, 6 years, 1997-2003. Funding: \$1,550,000.

Dusenbery, P. B., K-12 Education Workshops for Scientists & Engineers, NASA, 3 years, 1997-2002. Funding: \$340,000.

Dusenbery, P. B., MarsQuest, NASA, 4 years, 1998-2002. Funding: \$500,000.

Dusenbery, P. B., Cheri Morrow, and James Harold, Space Weather Outreach Program, NASA, 3 years, 2001-2004. Funding: \$200,000.

Dusenbery, P. B., Cheri Morrow, and James Harold, Space Weather Outreach Program, NSF, 3 years, 2001-2004. Funding: \$305,000.

Dusenbery, P. B., Cosmic Origins, NSF, 3 years, 2002-2005. Funding: \$1,100,000.

Dusenbery, P. B., Cheri Morrow, and James Harold, MarsQuest Refurb, NSF, 2 years, 2002-2003. Funding: \$430,000.

Dusenbery, P. B., Cosmic Origins, NASA Missions (SETI, Spitzer, Navigator); 3 years, 2002-2005. Funding: \$510,000.

Dusenbery, P. B., Cheri Morrow, and James Harold, Giant Planets, NSF, 3 years, 2004-2007; Funding: \$1,800,000.

Dusenbery, P. B., Phoenix Mission Interactive, NASA, 1 year, 2004-2005. Funding: \$227,000.

Dusenbery, P. B., Space Weather Outreach III, NSF, 3 years, 2005-2008; Funding: \$510,000

PUBLICATIONS

REFEREED JOURNAL ARTICLES

Kaufmann, R. L., P. B. Dusenbery, B. J. Thomas, and R. L. Arnoldy, Auroral electron distribution functions, *J. Geophys. Res.*, 83, 586, 1978.

Kaufmann, R. L., P. B. Dusenbery, and B. J. Thomas, Stability of the auroral plasma: Parallel and perpendicular propagation of electrostatic waves, *J. Geophys. Res.*, 83, 5663, 1978.

P. B. Dusenbery, A kinetic theory of weak wave-particle interactions in an auroral plasma, *Ph.D. Dissertation*, University of New Hampshire, May, 1978.

Dusenbery, P. B., and R. L. Kaufmann, Properties of the longitudinal dielectric function: An application to the auroral plasma, *J. Geophys. Res.*, 85, 5969, 1980.

Dusenbery, P. B., and J. V. Hollweg, Ion-cyclotron heating and acceleration of solar wind minor

- ions, *J. Geophys. Res.*, *86*, 153, 1981.
- Dusenbery, P. B., and L. R. Lyons, Generation of ion-conic distributions by upgoing ionospheric electrons, *J. Geophys. Res.*, *86*, 7627, 1981.
- Dusenbery, P. B., and L. R. Lyons, General concepts on the generation of auroral kilometric radiation, *J. Geophys. Res.*, *87*, 7467, 1982.
- Dusenbery, P. B., and L. R. Lyons, Generation of z mode radiation by diffuse auroral electron precipitation, *J. Geophys. Res.*, *90*, 2915, 1985.
- Dusenbery, P. B., and L. R. Lyons, Generation of electrostatic noise in the plasma sheet boundary layer, *J. Geophys. Res.*, *90*, 10, 935, 1985.
- Dusenbery, P. B., Generation of broadband noise in the magnetotail by the beam acoustic instability, *J. Geophys. Res.*, *91*, 12005, 1986.
- Dusenbery, P. B., The convective growth of broadband turbulence in the plasma sheet boundary layer, *J. Geophys. Res.*, *92*, 2560, 1987.
- Warwick, J. W., D. R. Evans, and P. B. Dusenbery, Waves on the uranian down-stream magnetopause, *J. Geophys. Res.*, *92*, 15, 367, 1987.
- Dusenbery, P. B., and L. R. Lyons, Generation of broadband noise in the geomagnetotail, Magnetotail Physics (edited by A.T.Y. Lui), Johns Hopkins Press, 1987.
- Dusenbery, P. B., and R. F. Martin, Jr., Generation of broadband turbulence by accelerated auroral ions, 1. parallel propagation, *J. Geophys. Res.*, *92*, 3261, 1987.
- Dusenbery, P. B., R. F. Martin, Jr., and R. M. Winglee, Ion-ion waves in the auroral region: wave excitation and ion heating, *J. Geophys. Res.*, *93*, 5655, 1988.
- Dusenbery, P. B., and L. R. Lyons, Unmagnetized diffusion for azimuthally symmetric wave and particle distributions, *J. Plasma Phys.*, *40*, 179, 1988.
- Dusenbery, P. B., Reply to N. Omidi and K. Akimoto," *J. Geophys. Res.*, *93*, 14,729, 1988.
- Winglee, R. M., P. L. Pritchett, P. B. Dusenbery, A. M. Persoon, J. H. Waite, Jr., T.E. Moore, J. L. Burch, H. L. Collin, J. A. Slavin, and M. Sigiura, Particle acceleration and wave emissions associated with the formation of auroral cavities and enhancements, *J. Geophys. Res.*, *93*, 14,567, 1989.
- Winglee, R. M., P. B. Dusenbery, H. L. Collin, C. S. Lin, A. M. Persoon, Simulations and observations of heating of auroral ion beams, *J. Geophys. Res.*, *94*, 8943, 1989.
- Dusenbery, P. B., and L. R. Lyons, Ion diffusion coefficients from resonant interactions with broadband turbulence in the magnetotail, *J. Geophys. Res.*, *94*, 2484, 1989.
- Romero, H., G. Ganguli, P. Palmadesso, and P. B. Dusenbery, Equilibrium structure of the plasma sheet boundary layer-lobe interface, *Geophys. Res. Lett.*, *17*, 2313, 1990.
- Burkhart, G. R., R. F. Martin, Jr., P. B. Dusenbery, and T. W. Speiser, Neutral line chaos and phase space structure, *Geophys. Res. Lett.*, *18*, 1591, 1991.
- Burkhart, G. R., J. F. Drake, P. B. Dusenbery, and T. W. Speiser, A particle model for magnetotail neutral sheet equilibria, *J. Geophys. Res.*, *97*, 13,799, 1992.
- Burkhart, G. R., J. F. Drake, P. B. Dusenbery, and T. W. Speiser, Ion tearing in a magnetotail configuration with an embedded thin current sheet, *J. Geophys. Res.*, *97*, 16,749, 1992.
- Burkhart, G. R., R. E. Lopez, P. B. Dusenbery and T. W. Speiser, Observational support for the

- current sheet catastrophe model of substorm current disruption, *Geophys. Res. Lett.*, *19*, 1635, 1992.
- Dusenbery, P. B., R. F. Martin, Jr., and G. R. Burkhart, Particle chaos in the earth's magnetotail, *Chaos, American Institute of Physics*, *2*, 427, 1992.
- Burkhart, G. R., P. B. Dusenbery, and T. W. Speiser, Comment on "Physics of the magnetotail current sheet" [*Phys. Fluids B*, *5*, 2663, 1993], *Phys. Fluids B*, 1993.
- Burkhart, G. R., P. B. Dusenbery, T. W. Speiser and R. E. Lopez, Hybrid simulation of thin current sheets, *J. Geophys. Res.*, *98*, 21,373, 1993.
- Doxas, I., G. R. Burkhart, T. W. Speiser, P. B. Dusenbery, W. Horton, A proposed neutral line signature, *J. Geophys. Res.*, *99*, 2383, 1993.
- Burkhart, G. R., P. B. Dusenbery, and T. W. Speiser, Particle Chaos and Pitch-Angle Scattering, *J. Geophys. Res.*, *100*, 107, 1994.
- Burkhart, G. R., P. B. Dusenbery, and T. W. Speiser, Comment on "Physics of the magnetotail current sheet" [*Phys. Fluids B5*, 2663 (1993)], *Phys. Plasmas* *1*, 801, 1994.
- Dusenbery, P. B., J. Harold, B. McLain, and L. Curtis, *Space Weather Outreach: An Informal Education Perspective*, accepted for publication, *Advances in Space Research*, 2007

REPORTS, PROCEEDINGS AND PREPRINTS

- Dusenbery, P. B., and L. R. Lyons, The generation of ion-conics via quasilinear diffusion, *Geophysical Monograph Series*, *25*, Auroral Arcs, American Geophysical Union, 1981.
- Dusenbery, P. B., Anatomy of a magnetic substorm," SPPG Research Report, University of Colorado, 1989.
- Dusenbery, P. B., Current sheet dynamics and particle chaos," SPPG Research Report, University of Colorado, 1989.
- Speiser, T. W., P. B. Dusenbery, R. F. Martin, Jr., and D. J. Williams, Particle orbits in magnetospheric current sheets: Accelerated flows, neutral line signature, and transitions to chaos, *Geophysical Monograph*, *62*, 71, 1991.
- Dusenbery, P. B., R. M. Winglee and G. A. Dulk, The development of field-aligned currents and auroral particle acceleration during active times, *Geophys. Mono*, *64*, 437, 1991.
- Lopez, R. E., M. J. Engebretson, P. B. Dusenbery, Space Physicists and Education: Activities of the Space Physics and Aeronomy Section of the American Geophysical Union, *International Astronautical Federation*, 1991.
- Dusenbery, P. B., R. R. Anderson, D. G. Mitchell, T. W. Speiser, and D. J. Williams, Plasma wave turbulence associated with substorm dynamics: A study of the 1054UT CDAW 6 substorm," preprint, 1992.
- Dusenbery, P. B. and G. L. Siscoe, Geospace environment modeling program, *EOS*, *73*, 83, 1992.
- Fuselier, S. and P. B. Dusenbery, Increasing involvement in local schools, *EOS*, *73(18)*, 204, 1992.
- Doxas, I., G. R. Burkhart, T. W. Speiser, and P. B. Dusenbery, Plasma acceleration and heating by an o-type neutral line, in progress, 1994.
- Ashour-Abdalla, M., Chang, T. and P. B. Dusenbery (eds), Space Plasmas: Coupling Between Small and Medium Scale Processes, *American Geophysical Union Geophys. Mono.*, *86*, 1995.

- Dusenbery, P. B. and G. R. Burkhart, By Effects on Current Sheet Particle Motion, *Geophys. Mono.*, 86, ??, 1995.
- Ganguli, G., H. Romero, and P. B. Dusenbery, The dynamical plasma sheet boundary layer: A new perspective, *Geophys. Monograph*, 86, 371, 1995.
- Meier, B., Ramon Lopez, P. B. Dusenbery, *Solarscapes*, Space Science Institute Publication, 1999.
- P. B. Dusenbery, *SpaceStorms: event-based activities for high school*, Space Science Institute Publication, 2000.
- Dusenbery, P.B., Morrow, C.A., Workshops for scientists and engineers on education and public outreach, *Advances in Space Research* (a COSPAR publication) May 2003
- Dusenbery, P.B., Morrow, C.A., Workshops for Scientists and Engineers on Education and Public Outreach, Space COSPAR, 2004.
- Dusenbery, P. B., and Mayo, L., Developing exhibitions through public/private partnerships: A case study of the Space Weather Center exhibit, *OSS Education Conference Proceedings*, 2004.
- Dusenbery, P. B., Making the connection between formal and informal learning, at *OSS Education Conference Proceedings*, 2004.
- Dusenbery, P.B., Koke, J., Public Understanding of Science through Evaluations, *COSPAR July 2004*
- Dusenbery, P.B., Harold, J., Morrow, C.A., “Communicating Science through Exhibitions”, *COSPAR July 2004*
- Dusenbery, P.B., Morrow, C.A., “Making the Connection between Formal and Informal Learning”, *ASP Conference Series*, Vol. 319, 2004, 275-277
- Dusenbery, P.B., Mayo, L., “Developing Exhibitions through Public/Private Partnerships: A Case Study of the Space Weather Center Exhibit”, *ASP Conference Series*, Vol. 319, 2004, 278-280
- Dusenbery, P.B., Harold, J., Morrow, C.A., “Reaching the Public through Traveling Exhibitions”, *36th Meeting of the AAS Division for Planetary Sciences*, November 2004
- Harold, J. B., and P. B. Dusenbery, *Bringing Mars Home: the MarsQuest Online Project*, *Museums and the Web*, 2004, <http://www.archimuse.com/mw2004/papers/harold/harold.html>.
- Harold, J. B., R. Korn, C. Randall, and P. Dusenbery, *Hands-On versus On-Line: Evaluating MarsQuest Online*, *Museums and the Web*, 2005, <http://www.archimuse.com/mw2005/papers/harold/harold.html>.

PRESENTATIONS

- Dusenbery, P.B., Electrostatic noise generation in the plasma sheet by ion beams, at *American Geophysical Union*, fall meeting, 1985.
- Dusenbery, P.B. and L.R. Lyons, Ion diffusion coefficients from resonant interactions with broadband electrostatic waves, at *American Geophysical Union*, fall meeting, 1986.
- Martin, R.F., Jr. and P.B. Dusenbery, Generation of broadband turbulence by accelerated auroral ions 1. Parallel propagation, at *American Geophysical Union*, fall meeting, 1986.
- Dusenbery, P.B. and K.-I. Nishikawa, A simulation study of electrostatic waves in the plasma sheet, at *IAGA*, Vancouver, BC, 1987.
- Dusenbery, P.B. and L.R. Lyons, Ion diffusion coefficients from resonant interactions with

- broadband electrostatic waves, at IAGA, Vancouver, BC, 1987.
- Dusenbery, P.B. and R.M. Winglee, Ion-ion beam interactions in the auroral region: Wave excitation and ion heating, at American Geophysical Union, spring meeting, 1988.
- Winglee, R.M. and P.B. Dusenbery, Particle acceleration and wave emissions associated with the formation of auroral cavities and enhancements, at American Geophysical Union, spring meeting, 1988.
- Dusenbery, P. B., Pitch angle diffusion of ion beams in the PSBL by ion-sound waves, at American Geophysical Union, fall meeting, 1988.
- Dusenbery, P. B., R. R. Anderson, and D. G. Mitchell, Plasma wave turbulence associated with substorm dynamics: A study of the 1054 UT (CDAW 6) substorm, at American Geophysical Union, fall meeting, 1988.
- Winglee, R. M., P. B. Dusenbery, A. M. Persoon, H. L. Collin, and C. S. Lin, Evidence for the heating of auroral ion beams by the ion-ion instability, at American Geophysical Union, fall meeting, 1988.
- Dusenbery, P. B., I. Doxas, T. W. Speiser, and W. Horton, Time evolution of the particle distribution function in a time-dependent magnetotail model, at American Geophysical Union, spring meeting, 1989.
- Speiser, T. W. and P. B. Dusenbery, Particle orbits in magnetospheric current sheets: Accelerated flows, neutral line signature, and transitions to chaos, at Huntsville Workshop on Magnetosphere/Ionosphere Plasma Models, 10/89.
- Doxas, I., P. B. Dusenbery, T. W. Speiser, and R. F. Martin, Jr., Current sheet dynamics and particle chaos: The hamiltonian approach, at American Geophysical Union, fall meeting, 1989.
- Dusenbery, P. B., T. W. Speiser, I. Doxas, and R. F. Martin, Jr., Current sheet dynamics and particle chaos: basic theory, at American Geophysical Union, fall meeting, 1989.
- Dusenbery, P. B. and I. Doxas, Phase space diffusion of charged particles in current sheets, at American Geophysical Union, spring meeting, 1990.
- Dusenbery, P. B., Particle chaos in current sheets and near neutral lines, at American Geophysical Union, spring meeting, 1990.
- Speiser, T. W., P. B. Dusenbery, I. Doxas, Particle motion in the tail current sheet, at COSPAR XXVIII Plenary Meeting, The Hague, Netherlands, July, 1990.
- Dusenbery, P. B., I. Doxas, T. W. Speiser, and J. R. Cary, Phase space diffusion of charged particles in current sheets, at American Geophysical Union, fall meeting, 1990.
- Ganguli, G., H. Romero, P. Palmadesso, and P. B. Dusenbery, Shear-driven broadband electrostatic noise at the plasma sheet boundary layer-lobe interface, at American Geophysical Union, fall meeting, 1990.
- Romero, H., G. Ganguli, P. Palmadesso, P. B. Dusenbery, Equilibrium structure of the plasma sheet boundary layer-lobe interface, at American Geophysical Union, fall meeting, 1990.
- Romero, H. G. Ganguli and P. B. Dusenbery, Linear and nonlinear properties of the electron-ion hybrid mode at the PSBL-lobe interface, at American Geophysical Union, fall meeting, 1991.
- Dusenbery, P. B., H. Romero and G. Ganguli, Observational signatures and theoretical investigation of the PSBL-lobe interface equilibrium, at American Geophysical Union, fall meeting, 1991.

- Lopez, R. E., M. J. Engebretson and P. B. Dusenbery, Space physicists and education: Activities of the space physics and aeronomy section of the American Geophysical Union, at American Geophysical Union, fall meeting, 1991.
- Burkhart, G. R., J. F. Drake, P. B. Dusenbery, and T. W. Speiser, Current sheet particle motion as a cause of current disruption, at American Geophysical Union, fall meeting, 1991.
- Dusenbery, P. B., G. Ganguli and H. Romero, Shear-driven broadband electrostatic noise at the plasma sheet boundary layer-lobe interface, at the National Radio Science Meeting, Boulder, CO, January, 1992.
- Lopez, R. E., M. J. Engebretson and P. B. Dusenbery, Space physicists and education: Activities of the Space Physics and Aeronomy Section of the American Geophysical Union, at COSPAR, Washington, DC, 1992.
- Ganguli, G., H. Romero, and P. B. Dusenbery, Origin and stability of small-scale structures at PSBL-lobe interface, at American Geophysical Union Chapman Conference on Micro and Meso Scale Phenomena in Space Plasmas, February 17-21, 1992.
- Dusenbery, P. B., Burkhart, G. R., and T. W. Speiser, Collisionless current sheet structure for the magnetotail and magnetopause, at American Geophysical Union, spring meeting, 1992.
- Burkhart, G. R., P. B. Dusenbery, and T. W. Speiser, Particle simulation studies of current disruption, at American Geophysical Union, spring meeting, 1992.
- Mauk, B. H., R. E. Lopez, G. R. Burkhart, P. B. Dusenbery, and T. W. Speiser, Observational evidence for the current sheet catastrophe model of substorm current disruption in the near-earth magnetotail, at American Geophysical Union, spring meeting, 1992.
- Doxas, I., T. W. Speiser, P. B. Dusenbery, G. R. Burkhart, and W. Horton, A proposed neutral line signature, at American Geophysical Union, fall meeting, 1992.
- Dusenbery, P. B., G. R. Burkhart, and T. W. Speiser, The effect of a nonzero B_y on particle dynamics in the magnetotail, at American Geophysical Union, fall meeting, 1992.
- Burkhart, G. R., P. B. Dusenbery, and T. W. Speiser, Particle simulation studies of current disruption, at American Geophysical Union, fall meeting, 1992.
- Ganguli, G., H. Romero, P. B. Dusenbery, Observations and particle simulations of the plasma sheet boundary layer under stressed conditions, at American Geophysical Union, fall meeting, 1992.
- Romero, H., G. Ganguli, P. B. Dusenbery, Nonlinear dynamics of the plasma sheet boundary layer under stressed conditions, at American Geophysical Union, fall meeting, 1992.
- Dusenbery, P. B., G. R. Burkhart, T. W. Speiser, and F. Hall, The effect of a nonzero B_y on particle motion in the tail, at American Geophysical Union, fall meeting, 1993.
- Doxas, I., G. Burkhart, T. W. Speiser, and P. B. Dusenbery, Stochastic plasma heating by a neutral line, fall meeting, 1993.
- Flewelling, D., P. B. Dusenbery, and G. R. Burkhart, Phase space structure in the presence of a nonzero guide field, fall meeting, 1993.
- Hall, F., G. R. Burkhart, P. B. Dusenbery, and T. W. Speiser, Current sheet scattering, fall meeting, 1993.
- Burkhart, G. R., P. B. Dusenbery, and T. W. Speiser, Hybrid simulation of thin current sheets, fall meeting, 1993.

- Dusenbery, P. B., The electric space exhibit project: An education partnership, at American Geophysical Union (invited), spring meeting, 1995.
- Dusenbery, P. B., Dynamical time scales and phase space structure, at 1995 Cambridge/Symposium Workshop on the Physics of Space Plasmas, 1995.
- Dusenbery, P. B., Space Weather Outreach, fall meeting, at American Geophysical Union, 1996.
- Dusenbery, P. B., SpaceStorms: An event-based curriculum for high school students, at American Geophysical Union, fall meeting, 1999.
- Dusenbery, P. B., The Space Weather Center: Research and standards in an informal setting, at American Geophysical Union, fall meeting, 1999.
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