

**CURRICULUM VITAE**  
**Vassilis Angelopoulos**  
**January 27, 2012**

Title/Affiliation: Professor, ESS/IGPP, 2712A Geology, Box 951567, Los Angeles, CA 90095

Education:

Ph.D. in Physics with specialization in Space Plasma Physics, UCLA, April 1, 1993.

Awards and Honors:

May 13, 2008: Recipient of NASA Goddard Space Flight Center group achievement award, for the “successful launch and operations of the THEMIS mission”  
May 8, 2008: Recipient of NASA group achievement award by NASA Administrator M. Griffin, for the “successful delivery, launch and operations of the THEMIS probes”.  
January 2001: Macelwane Medal, conferred by the American Geophysical Union in recognition of significant contributions to the geophysical sciences by young scientists.  
July 2000: Zeldovich Medal, conferred by the Russian Academy of Sciences and COSPAR to recent Ph.D. recipients for excellence and achievement.  
June 1994: Fred Scarf Award, conferred by AGU’s Space Physics and Aeronomy Section to the best Ph.D. thesis.  
1986-1992: Fulbright fellowship for the duration of Ph.D. program.

Science Community Involvement:

Organizing Committee for AGU Chapman Conference, Relationship between Auroral Phenomenology and Magnetospheric Processes, Fairbanks, Alaska, Feb. 27-Mar. 4, 2011.  
Convener of: Focus Group of NSF Geospace Environment Modeling meeting on: “Substorms, the first 10 minutes,” July 2009 (Snowmass, CO); July 2010 (Snowmass, CO), July 2011 (Santa Fe, NM).  
Co-convener of Tenth International Conference on Substorms, Pismo Beach, CA, March 22-26, 2010.  
Co-convener of Earth-Sun System Exploration: Energy coupling within and between plasma regimes, Kona, Hawaii, Jan 14-18, 2008.  
Co-convener of “Substorms, auroral phenomena and first results from THEMIS” in Spatio-Temporal Analysis and Multipoint Measurements in Space (STAMMS) meeting, Orleans, France, September 2007.  
Convener of “Progressing to closure of magnetotail and substorm processes,” IUGG, Perugia, Italy, July 2, 2007.  
Convener of “THEMIS Science Collaboration Meeting, on Multipoint observations in the magnetosphere and its coupling to the ionosphere and the solar wind,” Radisson Resort, Cape Canaveral, Florida, Feb 13-14, 2007.  
Member of Committee on Solar and Space Physics of the National Research Council (03/2002-06/2005).  
Co-convener of special session on “Mysteries of magnetotail dynamics” Spring AGU meeting, May 2002.  
Convener of special session on “Electrodynamic coupling of high latitude ionosphere and plasma sheet” Fall AGU meeting, December 2001.  
Co-Convener of session on “Tail plasma flows and ionospheric consequences” First S-RAMP Conference, October 2000.  
Member of Science and Technology Definition Team on Magnetospheric Constellation, NASA Office of Space Science, January 1999-December 1999.  
Editor, “Science closure and enabling technologies for Constellation class missions,” University of California Press, December 1998.  
Co-Convener of special session on “Science closure and enabling technologies for magnetospheric Constellation missions,” American Geophysical Union Fall Meeting, San Francisco, CA, December 8-12, 1997  
Member of Science Definition Team on Geospace Multiprobes, NASA Office of Space Science, November 1996-August 1997.  
Co-Convener of IAGA two day symposium “The Geomagnetic Tail and its Junction with the Inner

Magnetosphere including Ionospheric Effects” to be held in Uppsala, Sweden on August 4-14, 1997.

Chairman of session “Magnetotail and Waves,” American Geophysical Union Fall Meeting, San Francisco, CA, December 15-19, 1996.

Co-Convener of IUGG two day symposium “Dynamics of the Magnetotail and the High-Latitude Nightside Ionosphere” held in Boulder, CO, on 3-4 July, 1995.

Assistant Editor of special issue of Journal of Geomagnetism and Geoelectricity on the above topic.

Professional Societies:

American Geophysical Union; American Physical Society; The Scientific Research Society, Sigma Xi; Hellenic Astronomical Society; Hellenic Physical Society

Teaching (UCLA):

ESS9: Solar Systems/Planets  
ESS200C: Intro Geophysics/Space Physics  
ESS240: Space Plasma Physics  
ESS265: Space Physics Instrumentation  
ESS288: Seminar: Space Physics  
ESS293: Space Physics Journal Club

Student Supervision:

UCLA, 2011-2012

Supervisor: - Christine Gabrielse (ESS, 5th year)  
Supervisor: - Michael Hartinger (ESS, 6th year)  
Supervisor: - Justin H. Lee (ESS, 3rd year)  
Supervisor: - Shanshan Li (ESS, 4th year)  
Supervisor: - Jiang Liu (ESS, 5th year)  
Supervisor: - Xiaojia Zhang (ESS, 4th year)  
Supervisor: - Jenni Kissinger (ESS, 5th year, ) - co-advisor with R. L. McPherron

UCLA, 2007-2010

Thesis Committee Member - Dmitriy Subbotin (AOGS) - thesis committee member (R. Thorne, advisor)  
Thesis Committee Member - Wen Li (AOGS) - thesis committee member (R. Thorne, advisor)  
Thesis Committee Member - David Auerbach (P&A) - thesis committee member (T. Carter, advisor)  
Exam Committee Member - Michael Hartinger – 1st oral exam committee member (M. Moldwin, advisor)  
Exam Committee Member - Marissa Vogt – 1st/2nd oral exam committee member (M. Kivelson, advisor)  
Exam Committee Member - Jenni Kissinger – 1st/2nd oral exam committee member (R. L. McPherron, advisor)

UCB, 1995-2008

Supervised undergraduate physics student Shannon McCurdy in orbit design, space physics phenomenology, coordinate transformations and science closure for THEMIS (2002).  
Supervised undergraduate physics student M. Woodruff in analysis of Geotail data and in space plasma physics (1999-2000).  
Supervised post-graduate ME student G. Y. Lee towards his MS thesis on mechanical and thermal considerations on microspacecraft development (1996-1999).  
Supervised post-graduate student F. Khan towards his MS research project on guidance and control considerations on autonomous microspacecraft (1996-1999).  
Supervised undergraduate EE student Yuri Yuriev on antenna pattern solutions for microsats (1996-1999).  
Supervised post-graduate physicist Michael Somoza on studies related to Geotail and POLAR electric field data analysis (1995-1998).  
Supervised undergraduate EECS student Jack Xie to conduct data analysis, processing, visualization and WWW presentation of Space Physics Datasets (1995-1998).  
Supervised physics graduate student Julie Walters on plasma turbulence in Earth’s tail (1998-1999).  
Supervised physics undergraduate student Jarrod Chapman’s work on data visualization of plasma distribution functions.  
Supervised undergraduate astronomy student Lisa Will through UCLA’s work study program (1990-1992).

Publications

- 1 H. Karimabadi and V. Angelopoulos, Arnold's diffusion in two dimensions, *Phys. Rev. Lett.*, **62**, 20, 2342, 1989.
- 2 V. Angelopoulos, R. Elphic, S.P. Gary, and C.Y. Huang, Electromagnetic instabilities in the plasma sheet boundary layer, *J. Geophys. Res.*, **94**, 15373, 1989.
- 3 J.L. Roeder, V. Angelopoulos, W. Baumjohann, and R.L. Anderson, Observations of correlated broadband electrostatic noise and electron cyclotron emissions in the plasma sheet, *Geophys. Res. Lett.*, **18**, 1, 53, 1991.
- 4 V. Angelopoulos, W. Baumjohann, C.F. Kennel, F.V. Coroniti, M.G. Kivelson, R. Pellat, R.J. Walker, H. Lühr, and G. Paschmann, Bursty bulk flows in the inner central plasma sheet, *J. Geophys. Res.* **97**, 4027, 1992.
- 5 V.A. Angelopoulos, C.F. Kennel, F.V. Coroniti, R. Pellat, M.G. Kivelson, R.J. Walker, W. Baumjohann, G. Paschmann, and H. Lühr, Bursty bulk flows in the inner plasma sheet: An effective means of earthward transport in the magnetotail, *Proceedings of the First International Conference on Substorms*, **ESA SP-335**, 303, 1992.
- 6 V.A. Angelopoulos, C.F. Kennel, F.V. Coroniti, R. Pellat, H.E. Spence, M.G. Kivelson, R.J. Walker, W. Baumjohann, W.C. Feldman, J.T. Gosling, and C.T. Russell, Characteristics of ion flow in the quiet state of the inner plasma sheet, *Geophys. Res. Lett.* **20**, 1711, 1993.
- 7 V.A. Angelopoulos, C.F. Kennel, F.V. Coroniti, W.C. Feldman, J.T. Gosling, M.G. Kivelson, R.J. Walker, and C.T. Russell, Observations of a quasi-static plasma sheet boundary, *Geophys. Res. Lett.* **23**, 2813, 1993.
- 8 S. Ohtani, B.J. Anderson, D. G. Sibeck, P.T. Newell, L.J. Zanetti, T.A. Potemra, K. Takahashi, R.E. Lopez, V. Angelopoulos, R. Nakamura, and C.T. Russell, A multi-satellite study of a pseudo-substorm onset in the near-Earth magnetotail, *J. Geophys. Res.* **98**, 19355, 1993.
- 9 C.F. Kennel and V. Angelopoulos, Unsteady convection in the plasma sheet, *Report of the GEM workshop on the physics of the tail and substorms, July 1 and 2, 1993, Snowmass, CO*, 1993.
- 10 M.G. Kivelson, C.F. Kennel, R.L. McPherron, C.T. Russell, D.J. Southwood, R.J. Walker, K.K. Khurana, P.J. Coleman, C.M. Hammond, V. Angelopoulos, A.J. Lazarus, R.P. Lepping, and T.J. Hughes, The Galileo Earth encounter: Magnetometer and allied measurements, *J. Geophys. Res.* **98**, 11299, 1993.
- 11 R.L. McPherron, V. Angelopoulos, D.N. Baker, and E.W. Hones, Is there a near-Earth neutral line? *Adv. Space Res.* **13**, 173, 1993.
- 12 V. Angelopoulos, C.F. Kennel, F.V. Coroniti, R. Pellat, M.G. Kivelson, R.J. Walker, C.T. Russell, W. Baumjohann, W.C. Feldman, and J.T. Gosling, Statistical characteristics of bursty bulk flow events, *J. Geophys. Res.* **99**, 21257, 1994.
- 13 V. Angelopoulos, V.A. Sergeev, D.N. Baker, D.J. Mitchell, G.D. Reeves, C.T. Russell, H.J. Singer, Multi-point study of bursty bulk flow events during the sequence of small substorms, *Proceedings of the Second International Conference on Substorms*, 1994.
- 14 D.N. Baker, T.I. Pulkkinen, E.W. Hones Jr., R.D. Belian, R.L. McPherron, and V. Angelopoulos, Signatures of the substorm recovery phase at high-altitude spacecraft, *J. Geophys. Res.* **99**, 10967, 1994.
- 15 C.T. Russell, M. Ginskey, and V. Angelopoulos, Effect of sudden impulses on currents in the auroral ionosphere under northward interplanetary magnetic field conditions: A case study, *J. Geophys. Res.* **99**, 17617, 1994.
- 16 D.J. Williams, A.T.Y. Lui, R.W. McEntire, V. Angelopoulos, C. Jacquey, S.P. Christon, L.A. Frank, K.L. Ackerson, W.R. Paterson, S. Kokubun, T. Yamamoto, and D.H. Fairfield, Magnetopause encounters in the magnetotail at distances of  $\sim 80$  Re, *Geophys. Res. Lett.* **21**, 3007, 1994.
- 17 A.T.Y. Lui, D.J. Williams, R.W. McEntire, S.P. Christon, C. Jacquey, V. Angelopoulos, T. Yamamoto, S. Kokubun, L.A. Frank, K.L. Ackerson, and K. Tsuruda, A filament of energetic particles near the high-latitude dawn magnetopause, *Geophys. Res. Lett.* **21**, 3011, 1994.
- 18 A.T.Y. Lui, V. Angelopoulos, S.P. Christon, S. Kokubun, T. Yamamoto, D.G. Reeves, and R.D. Belian, Tailward energetic ion streams observed at  $\sim 100$  Re by Geotail-EPIC associated with

- geomagnetic activity intensification, C. Jacquey, D.J. Williams, R.W. McEntire, *Geophys. Res. Lett.* **21**, 3015, 1994.
- 19 A.T.Y. Lui, D.J. Williams, S.P. Christon, R.W. McEntire, V. Angelopoulos, C. Jacquey, T. Yamamoto, and S. Kokubun, A preliminary assessment of energetic ion species in flux ropes/plasmoids in the distant tail, *Geophys. Res. Lett.* **21**, 3019, 1994.
- 20 S.P. Christon, G. Gloeckler, D.J. Williams, T. Mukai, R.W. McEntire, C. Jacquey, V. Angelopoulos, A.T.Y. Lui, S. Kokubun, D.H. Fairfield, M. Hirahara, and T. Yamamoto, Energetic atomic and molecular ions of ionospheric origin observed in distant magnetotail flow-reversal events, *Geophys. Res. Lett.* **21**, 3023, 1994.
- 21 V.A. Sergeev, V. Angelopoulos, D.G. Mitchell, and C.T. Russell, In situ observations of magnetotail reconnection prior to onset of a small substorm, *J. Geophys. Res.* **100**, 19121, 1995.
- 22 V. Angelopoulos, D.G. Mitchell, D.J. Williams, R.W. McEntire, A.T.Y. Lui, S.P. Christon, S.M. Krimigis, E.C. Roelof, S.P. Christon, S. Kokubun, T. Yamamoto, W.J. Hughes, J.C. Samson, E. Friis-Christensen, K. Hayashi, Growth and evolution of a plasmoid associated with a small, isolated substorm: IMP8-GEOTAIL measurements in the plasma sheet, *Geophys. Res. Lett.* **22**, 3011, 1995.
- 23 V. Angelopoulos, F.V. Coroniti, C.F. Kennel, M.G. Kivelson, R.J. Walker, C.T. Russell, R.L. McPherron, E. Sanchez, C.-I. Meng, W. Baumjohann, G.D. Reeves, R.D. Belian, N. Sato, E. Friis-Christensen, and O. Troshichev, Multi-point analysis of a bursty bulk flow event on April 11, 1985, *J. Geophys. Res.* **101**, 4967, 1996.
- 24 V.A. Sergeev, V. Angelopoulos, J.T. Gosling, C.A. Cattell, and C. T. Russell, Detection of localized, plasma-depleted flux tubes or bubbles in the midtail plasma sheet, *J. Geophys. Res.* **101**, 10817, 1996.
- 25 D.A. Baker, T.I. Pulkkinen, V. Angelopoulos, W. Baumjohann and R.L. McPherron, The neutral line model of substorms: Past results and present view, *J. Geophys. Res.* **101**, 12975, 1996.
- 26 Nishida, A., and V. Angelopoulos, Preface to special issue of Geomagnetism and Geoelectricity on "Dynamics of the Magnetotail and the High-Latitude Nightside Ionosphere," *J. Geomagn. Geoelectr.* **48**, 453, 1996.
- 27 E.T. Sarris, V. Angelopoulos, R.W. McEntire, D.J. Williams, S.M. Krimigis, A.T.Y. Lui, E.C. Roelof, and S. Kokubun, Detailed observations of a burst of energetic particles in the deep magnetotail by Geotail, *J. Geomagn. Geoelectr.* **48**, 649, 1996.
- 28 A.T.Y. Lui, D.J. Williams, R.W. McEntire, C. Jacquey, V. Angelopoulos, E.C. Roelof, S.M. Krimigis, C.-I. Meng, S. P. Christon, F.M. Ipavich, G. Gloeckler, T.P. Armstrong, L.J. Lanzerotti, E.T. Sarris, S. Kokubun, L.A. Frank, K.L. Ackerson, W.R. Paterson, T. Yamamoto, T. Mukai, and K. Tsuruda, Initial investigation of energetic particle phenomena in the distant magnetotail from GEOTAIL/EPIC, *Adv. Space Res.* **18**, 17, 1996.
- 29 V. Angelopoulos, A.T.Y. Lui, R.W. McEntire, D.J. Williams, S. Kokubun, M. Nakamura, H. Kusaka, T. Mukai, G. D. Reeves, E. Friis-Christensen, W.J. Hughes, Anisotropy reversals in the distant magnetotail and their association with magnetospheric substorms, *J. Geomagn. Geoelectr.* **48**, 629, 1996.
- 30 V. Angelopoulos, V.A. Sergeev, F.S. Mozer, K. Tsuruda, S. Kokubun, T. Yamamoto, R. Lepping, G. Reeves, and E. Friis-Christensen, Spontaneous substorm onset during a prolonged period of steady, southward interplanetary magnetic field, *J. Geophys. Res.* **101**, 24583, 1996.
- 31 V. Angelopoulos, D.G. Mitchell, R.W. McEntire, D.J. Williams, A.T.Y. Lui, S.M. Krimingis, R.B. Decker, S.P. Christon, S. Kokubun, T. Yamamoto, Y. Saito, T. Mukai, F.S. Mozer, K. Tsuruda, G. Reeves, W.J. Hughes, E. Friis-Christensen and O. Troshichev, Tailward progression of magnetotail acceleration centers: relationship to substorm current wedge, *J. Geophys. Res.* **101**, 24599, 1996.
- 32 D. Vassiliadis, V. Angelopoulos, D.N. Baker, A.J. Klimas, The relation between the northern polar cap and auroral electrojet geomagnetic indices in the wintertime, *Geophys. Res. Lett.* **23**, 2781, 1996.
- 33 V. Angelopoulos, The role of impulsive particle acceleration in magnetotail circulation, in *Proc. Third International Conf. Substorms*, **ESA SP-389**, 17, 1996.
- 34 K. Kauristie, V.A. Sergeev, T. I. Pulkkinen, R. J. Pellinen, V. Angelopoulos, and W. Baumjohann, Study on the ionospheric signatures of the plasma sheet bubbles, in *Proc. Third International Conf. Substorms*, **ESA SP-389**, 93, 1996.

- 35 E.R. Sanchez, J.D. Kelly, V. Angelopoulos, T. Hughes, and H. Singer, Alfvén modulation of the substorm magnetotail transport, *Geophys. Res. Lett.* **24**, 979, 1997.
- 36 V. Angelopoulos et al., Correction to "Multipoint analysis of a bursty bulk flow event on April 11, 1985," *J. Geophys. Res.* **102**, 211, 1997.
- 37 V. Angelopoulos, T.D. Phan, D.E. Larson, F.S. Mozer, R.P. Lin, K. Tsuruda, H. Hayakawa, T. Mukai, S. Kokubun, T. Yamamoto, D.J. Williams, R.W. McEntire, R.P. Lepping, G.K. Parks, M. Brittner, G. Germany, J. Spann, H.J. Singer, and K. Yumoto, Magnetotail flow bursts: association to global magnetospheric circulation, relationship to ionospheric activity and direct evidence for localization, *Geophys. Res. Lett.* **24**, 2275, 1997.
- 38 D.V. Sarafopoulos, E.T. Sarris, V. Angelopoulos and T. Yamamoto, Spatial structure of the plasma sheet boundary layer at distances greater than  $180 R_E$  as derived from energetic particle measurements on GEOTAIL, *Annales Geophysicae* **15**, 1246, 1997.
- 39 V. Sergeev, V. Angelopoulos, C. Carlson, and P. Sutcliffe, Current sheet measurements within a flapping plasma sheet, *J. Geophys. Res.* **103**, 9177, 1998.
- 40 T. D. Phan, G. Paschmann, A. Raj, V. Angelopoulos, D. Larson, and R. P. Lin, WIND observations of the halo/cold plasma sheet, SUBSTORMS-4, Edited by S. Kokubun and Y. Kamide, Terra Scientific, 1998, 219.
- 41 V. A. Sergeev, L. I. Vagina, K. Kauristie, H. Koskinen, A. Huuskonen, A. Pajunpaa, R. Pellinen, T. Phan, V. Angelopoulos, R. P. Lin, R. P. Lepping, G. D. Reeves, and P. T. Newell, Continuous activity and substorm activations during a weak magnetic storm (WIND tail passage), SUBSTORMS-4, Edited by S. Kokubun and Y. Kamide, Terra Scientific, 1998.
- 42 V. Angelopoulos, C. W. Carlson, D. W. Curtis, P. Harvey, R. P. Lin, F. S. Mozer, and D. H. Pankow, On the necessity and feasibility of an equatorial magnetospheric constellation, in *Science Closure and enabling technologies for constellation class missions*, edited by V. Angelopoulos and P.V. Panetta, UC Berkeley, Calif. 1998, 14.
- 43 G.T. Delory, V. Angelopoulos, C.W. Carlson, P. Harvey, F.S. Mozer, R.P. Lin, D.H. Pankow, M. Temerin, T. Phan and J.H. Primbsch, A high science return, low cost, Constellation pathfinder, in *Science Closure and enabling technologies for constellation class missions*, edited by V. Angelopoulos and P.V. Panetta, UC Berkeley, Calif. 1998, 22.
- 44 R. E. Ergun, D. E. Larson, T. Phan, J. P. McFadden, C. W. Carlson, I. Roth, G. T. Delory, S. Bale, V. Angelopoulos, R. Strangeway, C. T. Russell, J. Raeder, P. A. Bernhardt, J.-L. Bougeret, R. Manning, J. Wygant, K. Goetz, R. Benson, J. Green, U. S. Inan, T. Bell, S. Fuselier, G. Paschmann, and R. Nakamura, Magnetospheric constellation and tomography mission concept, in *Science Closure and enabling technologies for constellation class missions*, edited by V. Angelopoulos and P.V. Panetta, UC Berkeley, Calif. 1998, 29.
- 45 J. Raeder and V. Angelopoulos, Using global simulations of the magnetosphere for multi-satellite mission planning and data analysis, in *Science Closure and enabling technologies for constellation class missions*, edited by V. Angelopoulos and P.V. Panetta, p. 78, UC Berkeley, Calif. 1998.
- 46 V. Angelopoulos, M. Bester, C.W. Carlson, D.W. Curtis, P. Harvey, J.H. Primbsch, T. Quinn, M. Somoza and J. Xie, Tracking and operations of Constellation microspacecraft, in *Science Closure and enabling technologies for constellation class missions*, edited by V. Angelopoulos and P.V. Panetta, UC Berkeley, Calif. 1998, 91.
- 47 Y. Yuriev, V. Angelopoulos, J.H. Primbsch, K. Hersey, and M. Powers, Antenna subsystem solution for Constellation class microspacecraft, in *Science Closure and enabling technologies for constellation class missions*, edited by V. Angelopoulos and P.V. Panetta, UC Berkeley, Calif. 1998, 142.
- 48 G.Y. Lee, V. Angelopoulos, D. Pankow, H. Dharan, J. Borsody, T. Porada, and J. H. Schlagel, Mechanical considerations of release and spin-up of Constellation microspacecraft, in *Science Closure and enabling technologies for constellation class missions*, edited by V. Angelopoulos and P.V. Panetta, UC Berkeley, Calif. 1998, 107.
- 49 V. Angelopoulos and H.E. Spence, Magnetospheric Constellation: past, present and future, in Sun-Earth Plasma Connections, *AGU Monograph Series*, **109**, 247, 1999.
- 50 S. Ohtani, G. Rostoker, K. Takahashi, V. Angelopoulos, M. Nakamura, C. Waters, H. Singer, S. Kokubun, K. Tsuruda, W.J. Hughes, T.A. Potemra, L.J. Zanetti, J.B. Gary, A.T.Y. Lui and D.J.

- Williams, Coordinated ISTP satellite and ground observations of morningside Pc5 waves, *J. Geophys. Res.* **104**, 2381, 1999.
- 51 W.R. Paterson et al., V. Angelopoulos, F. S. Mozer, R. P. Lin, T. Mukai, K. Tsuruda, R. Lepping, and W. Baumjohann, Comment on "Geotail survey of ion flow in the plasma sheet: Observations between 10 and 50  $R_E$ ," *J. Geophys. Res.* **104**, 17521, 1999.
- 52 A. T. Aikio, V. A. Sergeev, M. A. Shukhtina, L. I. Vagina, V. Angelopoulos, and G. D. Reeves, Characteristics of pseudobreakups and substorms observed in the ionosphere, at the geosynchronous orbit, and in the midtail, *J. Geophys. Res.* **104**, 12263, 1999.
- 53 V. Angelopoulos, F. S. Mozer, T. Mukai, K. Tsuruda, S. Kokubun and T. J. Hughes, On the relationship between bursty flows, current disruption and substorms, *Geophys. Res. Lett.* **26**, 2841, 1999.
- 54 V. Angelopoulos, T. Mukai and S. Kokubun, Evidence for intermittency in Earth's plasma sheet and implications for self-organized criticality, *Physics of Plasmas*, **6**, 4161, 1999.
- 55 R.E. Ergun, D.E. Larson, T. Phan, D. Taylor, S. Bale, C. W. Carlson, I. Roth, V. Angelopoulos, J. Raeder, T. Bell, U. S. Inan, J. -L. Bougeret, and R. Manning, Feasibility of a multisatellite investigation of the Earth's magnetosphere with radio tomography, *J. Geophys. Res.* **105**, 361, 2000.
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- 57 P. J. Chi, C. T. Russell, S. Musman, W. K. Peterson, G. Le, V. Angelopoulos, G. Reeves, M. B. Moldwin, and F. K. Chun, Plasmaspheric depletion and refilling associated with the September 25, 1998 magnetic storm observed by ground magnetometers at L=2, *Geophys. Res. Lett.* **27**, 633, 2000.
- 58 G. Le, P.J. Chi, W. Goedecke, C.T. Russell, A. Szabo, S.M. Petrinc, V. Angelopulos, G.D. Reeves, F.K. Chun, Magnetosphere on May 11, 1999, the day the solar wind almost disappeared. II. Magnetic pulsations in space and on the ground, *Geophys. Res. Lett.* **27**, 14, doi:10.1029/ 2000GL000012, 2000.
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- 60 K. Kauristie, V. A. Sergeev, M. Kubyshkina, T. I. Pulkkinen, V. Angelopoulos, T. Phan, R. P. Lin, and J. A. Slavin, Ionospheric current signatures of transient plasma sheet flows, *J. Geophys. Res.*, **105**, 10677, 2000.
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- 62 V. Angelopoulos, F. S. Mozer, J. Bonnel, M. Temerin, M. Somoza, W. K. Peterson, H. L. Collin, and B. Giles, Wave power studies of cusp crossings with the POLAR satellite, *J. Geophys. Res.* **106**, 5987, 2001.
- 63 V. Angelopoulos, M. Temerin, I. Roth, and F. S. Mozer, Multi-spacecraft studies in aid of space weather specification and understanding, *Proceedings of COSPAR Colloquium on Space Weather*, in press, Taiwan, 2001.
- 64 A. Yahnin, V. A. Sergeev, M. V. Kubyshkina, T. I. Pulkkinen, K. Liou, C.-I. Meng, V. Angelopoulos, N. L. Borodkova, T. Mukai, and S. Kokubun, Timing and location of phenomena during auroral breakup: A case study, *Proceedings of COSPAR Colloquium on Space Weather*, Poland, 2001.
- 65 C. R. McInnes, M. Mcdonald, V. Angelopoulos and D. Alexander, GEOSAIL: Exploring the geomagnetic tail using a small solar sail, *J. Spacecr. and Rockets*, **38**, 622, 2001.
- 66 D. Alexander, C.R. McInnes, V. Angelopoulos, A.W. Sandman, M. Macdonald, GeoSail: a novel solar sail mission concept for geospace, AIP. American Institute of Physics Conference Proceedings, no.608, pp.305-12. USA, 2002.
- 67 T. Chang, Wu Cheng-chin, V. Angelopoulos, Preferential acceleration of coherent magnetic structures and bursty bulk flows in Earth's magnetotail, *Swedish Acad. Sci. Physica Scripta*, vol.T98, pp.48-51. Sweden, 2002.

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