

Galileo/PLS Presentations

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1993

1. Frank, L. A., W. R. Paterson and M. G. Kivelson, Galileo Observations of Plasmas in Earth's Magnetotail and in the Vicinity of Gaspra, EOS, 74(16), 199, 1993.
2. Spence, H. E., L. A. Frank, W. R. Paterson and M. G. Kivelson, The Galileo Earth-1 Flyby: Comparison of the Finite Width Tail Convection Model With Observations, EOS, 74(43), 544, 1993.

1994

3. Ashour-Abdalla, M., L. A. Frank, W. R. Paterson, L. M. Zelenyi, J. Berchem, F. V. Coroniti, J. M. Bosqued, M. G. Kivelson, S. Kokubun and T. Yamamoto, Manifestations of Nonlinear Ion Dynamics in Distributions Observed in the Earth's Magnetotail, EOS, 75(16), 309, 1994.
4. Frank, L. A., W. R. Paterson, K. L. Ackerson, S. Kokubun, M. G. Kivelson and T. Yamamoto, Ion Velocity Distributions in the Vicinity of the Current Sheet in Earth's Distant Magnetotail, presented at the International Conference on Substorms-2, Fairbanks, Alaska, 7-11 March 1994.
5. Ashour-Abdalla, M., L. M. Zelenyi, J. M. Bosqued, F. V. Coroniti, J. Dandouras and L. A. Frank, Structure of Ion Flows in the Earth's Magnetotail, presented at the International Conference on Substorms-2, Fairbanks, Alaska, 7-11 March 1994.
6. Frank, L. A., The Galileo Mission to Jupiter: The Magnetospheric Objectives, presented at The International Symposium on The Magnetospheres of the Outer Planets 1994, Graz, Austria, 8-12 August 1994.
7. Kurth, W. S., L. A. Frank, W. R. Paterson, J. D. Menietti, D. A. Gurnett, M. G. Kivelson and C. T. Russell, Galileo Observations of Quasi-Thermal Plasma Noise Near Earth's Bowshock, EOS, 75(44), 533, 1994.
8. Khurana, K. K., M. G. Kivelson, L. A. Frank and W. R. Paterson, Unusual Properties of Flux Ropes Encountered by Galileo During the Earth-1 Flyby, EOS, 75(44), 558, 1994.

9. Ashour-Abdalla, M., L. M. Zelenyi, L. A. Frank and W. R. Paterson, On the Inherent Complexity of Non-Adiabatic Acceleration of Magnetotail Ions, EOS, 75(44), 574, 1994.

1995

10. Frank, L. A., W. R. Paterson, K. L. Ackerson, J. Seon, S. Kokubun, T. Yamamoto, M. Ashour-Abdalla, F. V. Coroniti, M. G. Kivelson, G. L. Siscoe, S. Shodhan-Shah, R. P. Lepping and D. H. Fairfield, Observations of Plasmas in Earth's Magnetotail With the Galileo and Geotail Spacecraft, presented at the 1995 Cambridge Workshop/Symposium on the Physics of Space Plasmas, Bermuda, 20-25 February 1995.
11. Ashour-Abdalla, M., L. M. Zelenyi, L. A. Frank and W. R. Paterson, Chaos and Regular Particle Motion in the Magnetotail, presented at the 1995 Cambridge Workshop/Symposium on the Physics of Space Plasmas, Bermuda, 20-25 February 1995.
12. Ashour-Abdalla, M., L. M. Zelenyi, W. R. Paterson and L. A. Frank, Description of Ion Magnetotail Distribution Functions Using Fractal Analysis and Entropy Calculations, EOS, 76(17), 258, 1995.
13. Hull, A. J., J. D. Scudder, L. A. Frank and W. R. Paterson, Electron Heating and Phase Space Signatures in Collisionless Shocks of Different Strengths and Geometries, EOS, 76(17), 229, 1995.
14. Frank, L. A., W. R. Paterson, K. L. Ackerson, J. Seon, M. Ashour-Abdalla, M. G. Kivelson, S. Kokubun, T. Yamamoto and R. P. Lepping, Plasma Dynamics in Earth's Magnetotail: Observations With the Geotail and Galileo Spacecraft, Meeting Program, XXI General Assembly, International Union of Geodesy and Geophysics, Boulder, Colorado, P4, 2-14 July 1995.

1996

15. Ashour-Abdalla, M., L. M. Zelenyi, V. Peroomian, L. A. Frank and W. R. Paterson, Quantifying the Intrinsic Complexity of Plasma Sheet Distribution Functions, 31st Scientific Assembly of COSPAR, Birmingham, United Kingdom, p. 183, 14-21 July 1996.
16. Frank, L. A., W. R. Paterson, K. L. Ackerson, F. V. Coroniti, V. M. Vasylunas and S. J. Bolton, First Look at the Plasma Observations With the Galileo Spacecraft at Jupiter, 31st Scientific Assembly of COSPAR, Birmingham, United Kingdom, p. 55, 14-21 July 1996.
17. Bagenal, F., F. Crary, I. Stewart, M. Taylor, L. Frank, D. Gurnett and W. Kurth, Comparison of Io Torus Plasma Densities Observed by Galileo with Previous in situ and Remote Measurements, 28th Annual Meeting of the Division for Planetary

Sciences, Tucson, Arizona, 23-26 October, Bulletin of the American Astronomical Society, 28(3), 1138, 1996.

18. Frank, L. A., W. R. Paterson, K. L. Ackerson, V. M. Vasyliunas, F. V. Coroniti and S. J. Bolton, Plasma Observations at Io With the Galileo Spacecraft, 28th Annual Meeting of the Division for Planetary Sciences, Tucson, Arizona, 23-26 October, Bulletin of the American Astronomical Society, 28(3), 1054, 1996.
19. Prangé, R., L. Frank, M. Kivelson, D. Rego, L. B. Jaffel, S. Miller, P. Zarka, D. Southwood and P. Louarn, HST Spectro-Imaging of Jupiter's Aurorae in Relation With Galileo In-situ Measurements, 28th Annual Meeting of the Division for Planetary Sciences, Tucson, Arizona, 23-26 October, Bulletin of the American Astronomical Society, 28(3), 1138, 1996.
20. Bagenal, F., F. Crary, I. Stewart, L. Frank, D. Gurnett and W. Kurth, Comparison of Io Torus Plasma Densities Observed by Galileo With Previous in situ and Remote Measurements, EOS, 77(46), 430, 1996.
21. Bennett, L., M. G. Kivelson, K. K. Khurana, L. A. Frank and W. R. Paterson, A New Model of the Earth's Distant Bow Shock Based on Observations From the Galileo Earth-2 Pass, EOS, 77(46), 583, 1996.
22. Bolton, S. J., L. A. Frank, D. A. Gurnett, W. S. Kurth, W. R. Paterson, R. M. Thorne and D. J. Williams, Galileo Observations of Whistler-mode Waves in the Io Torus, EOS, 77(46), 436, 1996.
23. Frank, L. A., W. R. Paterson, K. L. Ackerson, V. M. Vasyliunas, F. V. Coroniti, S. J. Bolton and M. G. Kivelson, Plasma Measurements at Io and Ganymede With the Galileo Spacecraft, EOS, 77(46), 430, 1996.
24. Hull, A. J., J. D. Scudder, L. A. Frank, W. R. Paterson and M. G. Kivelson, Coherent Electron Heating and Phase Space Signatures of a Very Weak Bow Shock Observed by Galileo, EOS, 77(46), 583, 1996.
25. Khurana, K. K., L. A. Frank, M. G. Kivelson, C. T. Russell, R. J. Walker and W. R. Paterson, Galileo's Observations of Stress-balance in Jupiter's Magnetosphere, EOS, 77(46), 434, 1996.

1997

26. Frank, L. A. and W. R. Paterson, The Mysterious Plasmas in the Vicinities of the Galilean Moons, presented at the conference The Three Galileos: the Man, the Spacecraft, the Telescope, Padova, Italy, 7-10 January, 1997.
27. Paterson, W. R. and Frank, L. A., Observations of Plasmas in Jupiter's Magnetosphere With the Galileo Spacecraft, presented at the conference The Three Galileos: the Man, the Spacecraft, the Telescope, Padova, Italy, 7-10 January, 1997.

28. Alexander, C., W. Ip, R. Carlson, J. Spencer, L. Frank, B. Paterson and S. Bolton, A Model for the Satellite Neutral Atmosphere Source from Sublimation, Magnetospheres of the Outer Planets, Boulder, Colorado, p. 81, 17–21 March 1997.
29. Frank, L. A. and W. R. Paterson, The Fascinating Interactions of the Galilean Moons with Jupiter's Magnetosphere, Magnetospheres of the Outer Planets, Boulder, Colorado, p. 70, 17-21 March 1997.
30. Prangé, R., D. Rego, L. Pallier, J. Ajello, L. Ben Jaffel, L. Frank, M. Kivelson, P. Louarn, S. Miller, D. Southwood and P. Zarka, GHRS Spectra of the North Jovian Aurora: Diagnostic Capabilities, and Comparison Between Spectra Taken in 1994 and During Galileo G2 Orbit, Magnetospheres of the Outer Planets, Boulder, Colorado, p. 50, 17-21 March 1997.
31. Vasyliunas, V. M., L. A. Frank, K. L. Ackerson and W. R. Paterson, Geometry of the Plasma Sheet in the Midnight-to-Dawn Sector of the Jovian Magnetosphere: Plasma Observations With the Galileo Spacecraft, presented at the European Geophysical Society 22nd General Assembly, Vienna, Austria, 21-25 April 1997.
32. Frank, L. A., W. R. Paterson, K. L. Ackerson, V. M. Vasyliunas, F. V. Coroniti and S. J. Bolton, Plasma Observations in the Vicinities of the Galilean Satellites, EOS, 78(17), 291, 1997.
33. Alexander, C., J. Spencer, R. Carlson, W. Smythe, L. Frank, B. Paterson and S. Bolton, A Model for the Ganymede Atmosphere, presented at the 29th Annual Meeting of the Division for Planetary Sciences of the American Astronomical Society, Cambridge, Massachusetts, 28 July-1 August 1997.
34. Paterson, W. R. and L. A. Frank, Observations of Plasmas in the Jovian Magnetosphere With the Galileo Spacecraft, 8th Scientific Assembly of International Association of Geomagnetism and Aeronomy (IAGA), Uppsala, Sweden, p. 447, 4-15 August 1997.
35. Crary, F. J., F. Bagenal, L. A. Frank and W. R. Paterson, Composition and Temperature of the Io Plasma Torus: Analysis of Galileo Plasma Spectrometer Data, presented at the conference Io During the Galileo Era, Lowell Observatory, 22-24 September 1997.
36. Alexander, C., L. Frank, S. Bolton, W. Paterson, K. Ackerson, Galileo PLS Observations Near Pele's Plume: Relevance to I24, presented at the conference Io During the Galileo Era, Lowell Observatory, 22-24 September 1997.
37. Bolton, S. J., C. Alexander, L. A. Frank, D. A. Gurnett, K. L. Ackerson, W. S. Kurth and W. R. Paterson, Plasma and Plasma Wave Results from the Galileo Survey of the Jovian Magnetosphere, EOS, 78(46), 420, 1997.
38. Crary, F. J., F. Bagenal, L. A. Frank and W. R. Paterson, Composition and Temperature of the Io Plasma Torus: Analysis of Galileo Plasma Spectrometer Data, EOS, 78(46), 422, 1997.

39. Frank, L. A., W. R. Paterson, K. L. Ackerson, F. J. Crary, F. Bagenal, S. J. Bolton and M. G. Kivelson, Observations of the Thermal Plasmas in Jupiter's Plasma Torus and Sheet, EOS, 78(46), 420, 1997.
40. Paterson, W. R., L. A. Frank and K. L. Ackerson, Galileo Observations of Plasmas at Europa, EOS, 78(46), 423, 1997.

1998

41. Frank, L. A., W. R. Paterson, K. L. Ackerson and S. J. Bolton, Observations of the Outflow of Hydrogen Ions from Io, EOS, 79(17), 201, 1998.
42. Paranicas, C., W. R. Paterson, L. A. Frank, A. F. Cheng and D. G. Williams, Galileo Charged Particle Fluxes Near Ganymede, EOS, 79(17), 202, 1998.
43. Paterson, W. R., L. A. Frank and K. L. Ackerson, Galileo Observations of Pickup Ions at Europa, EOS, 79(17), 201, 1998.
44. Frank, L. A., W. R. Paterson, K. L. Ackerson and S. J. Bolton, Plasma Dynamics Near Jupiter's Moons, presented at the 32nd COSPAR Scientific Assembly, Nagoya, Japan, p. 89, 12-19 July 1998.
45. Frank, L. A., W. R. Paterson, K. L. Ackerson, S. J. Bolton and M. G. Kivelson, Plasma Dynamics in Jupiter's Magnetotail, presented at the 32nd COSPAR Scientific Assembly, Nagoya, Japan, p. 168, 12-19 July 1998.

1999

46. Paterson, W. R. and L. A. Frank, Galileo Observations of the Plasma Environment of Europa, EOS, 80(17), 310, 1999.
47. Paterson, W. R. and L. A. Frank, Plasmas Near the Galilean Moons, XXII IUGG/IAGA General Assembly, Birmingham, United Kingdom, p. A.378, 18-30 July 1999.
48. Russell, C. T., D. E. Huddleston, R. J. Strangeway, X. Blanco-Cano, M. G. Kivelson, K. K. Khurana, L. A. Frank, W. R. Paterson, D. A. Gurnett and W. S. Kurth, Mirror Mode Structures at the Galileo Flyby, XXII IUGG/IAGA General Assembly, Birmingham, United Kingdom, p. A.379, 18-30 July 1999.
49. Yin, L., P. L. Pritchett, F. V. Coroniti, L. A. Frank and W. R. Paterson, Aspects of the Outer Jovian Current Sheet as Determined From Particle Simulations, XXII IUGG/IAGA General Assembly, Birmingham, United Kingdom, p. A.379, 18-30 July 1999.
50. Frank, L. A. and W. R. Paterson, Survey of Plasmas in the Jovian Magnetosphere as Observed with the Galileo Plasma Instrumentation, Magnetospheres of the Outer Planets (MOP '99) conference, Paris, France, p. 17, 9-14 August 1999.

51. Yin, L., F. V. Coroniti, P. L. Pritchett, L. A. Frank and W. R. Paterson, Kinetic Aspects of the Jovian Current Sheet From Particle-in-Cell Simulations, Magnetospheres of the Outer Planets (MOP '99) conference, Paris, France, p. 14, 9-14 August 1999.
52. Bolton, S. J., L. A. Frank, D. A. Gurnett, A. Roux, W. R. Paterson, and W. S. Kurth, New Plasma and Plasma Wave Observations in the Io Torus: A Search for Signatures of Interchange Motion, EOS, 80(46), 622, 1999.
53. Frank, L. A. and W. R. Paterson, Plasma Observations in the Vicinity of Io and its Torus, EOS, 80(46), 637, 1999.
54. Yin, L., F. V. Coroniti, P. L. Pritchett, L. A. Frank and W. R. Paterson, Kinetic Aspects of the Middle and Outer Jovian Current Sheet From Particle Simulations, EOS, 80(46), 876, 1999.

2000

55. Paterson, W. R. and L. A. Frank, Galileo PLS Observations of the Io Plasma Torus, EOS, 81(19), 290, 2000.
56. Frank, L. A. and W. R. Paterson, Observations of Plasma Dynamics in Jupiter's Magnetosphere with the Galileo Spacecraft, presented at the 33rd COSPAR Scientific Assembly, Warsaw, Poland, 16-23 July 2000.
57. Bagenal, F., N. M. Schneider, L. A. Frank, W. R. Paterson, F. Herbert, A. Hendrix and J. Weiss, Comparison of Torus Conditions Observed by HST and Galileo, EOS, 81(48), 787, 2000.
58. Paterson, W. R. and L. A. Frank, Passage Through Io's Ionospheric Plasmas by the Galileo Spacecraft, EOS, 81(48), 787, 2000.

2001

59. Frank, L. A., W. R. Paterson and M. G. Kivelson, Plasma Observations With the Galileo Spacecraft During the Joint Campaign With Cassini, EOS, 82(20), 254, 2001.
60. Frank, L. A. and W. R. Paterson, Thermal Plasmas in Jupiter's Torus and Magnetotail, presented at the Jupiter Planet, Satellites & Magnetosphere Meeting, Boulder, Colorado, 25-30 June 2001.
61. Paterson, W. R. and L. A. Frank, The Plasma Environments of Io and Europa, presented at the Jupiter Planet, Satellites & Magnetosphere Meeting, Boulder, Colorado, 25-30 June 2001.
62. Frank, L. A. and W. R. Paterson, Probing the Mysteries of Io's Ionosphere With the Plasma Instrumentation on the Galileo Spacecraft, EOS, 82(47), 684, 2001.

2002

63. Frank, L. A. and W. R. Paterson, Observations of Thermal Plasmas in the Dayside Jovian Magnetosphere With the Galileo Spacecraft, EOS, 83(19), 215, 2002.
64. Paterson, W. R. and L. A. Frank, The Plasma Environment and Electron Beams at Io, EOS, 83(19), 212, 2002.
65. Frank, L. A. and W. R. Paterson, Observations of Thermal Plasmas in the Jovian Magnetosphere with the Galileo Spacecraft, presented at the Magnetospheres of the Outer Planets (MOP) Meeting, Laurel, Maryland, 29 July - 2 August 2002.
66. Frank, L. A. and W. R. Paterson, Plasma Dynamics Observed Near Local Noon In Jupiter's Magnetosphere With the Galileo Spacecraft, EOS, 83(47), 1214, 2002.
67. Paterson, W. R. and L. A. Frank, Auroral Electron Beams in the Jovian Magnetosphere, EOS, 83(47), 1224, 2002.

2003

68. Khurana, K. K., W. S. Kurth, J. F. Cooper, J. H. Waite, J. E. P. Connerney, J. L. Green, F. Crary, W. R. Paterson, R. E. Johnson, C. Paranicas and B. H. Mauk, Field and Plasma Science With the Jupiter Icy Moons Orbiter (JIMO), EOS, 84(46), 936, 2003. (Invited)
69. Paterson, W. R. and L. A. Frank, A Galileo Perspective on Plasma Science for JIMO, EOS, 84(46), 1259, 2003.

2004

70. Frank, L. A. and W. R. Paterson, Thermal Plasmas Near Jupiter's Galilean Moons, Eos Trans. AGU, 85(17), Jt. Assem. Suppl., Abstract SM43D-02, 2004.
71. Paterson, W. R. and L. A. Frank, Galileo Observations of Electron Beams in Jupiter's Magnetosphere and Their Relationship With Auroral Processes, Eos Trans. AGU, 85(17), Jt. Assem. Suppl., Abstract SM11A-05, 2004.
72. Paterson, W. R. and L. A. Frank, Thermal Plasmas in Jupiter's Magnetosphere: Considerations for Auroral Processes, Eos Trans. AGU, 85(47), Fall Meet. Suppl., Abstract SM33A-1248, 2004.