

PUBLICATIONS

APL staff members were authors or coauthors of the following unclassified books and technical articles that were recently published:

- Aikio, A. T., Marklund, G. T., Woch, J., and Potemra, T. A., "Small-Scale Structures in the High-Altitude Auroral Electric Field," *Ann. Geophys.* **13**, 84–94 (1995).
- Anderson, B. J., and Engebretson, M. J., "Relative Intensity of Toroidal and Compressional Pc 3-4 Wave Power in the Dayside Outer Magnetosphere," *J. Geophys. Res.* **100**, 9591–9603 (1995).
- Babin, S. M., "A Case Study of Sub-Refractive Conditions at Wallops Island, Virginia," *J. Appl. Meteorol.* **34**, 1028–1038 (1995).
- Babin, S. M., "The Effects of Spatial Variability and Temporal Correlation of Rainfall on Runoff and Evaporation," *J. Clim.* **8**, 2104–2108 (1995).
- Baker, K. B., Dudeney, J. R., Greenwald, R. A., Pinnock, M., Newell, P. T., Rodger, A. S., Mattin, N., and Meng, C.-I., "HF Radar Signatures of the Cusp and Low-Latitude Boundary Layer," *J. Geophys. Res.* **100**, 7671–7695 (1995).
- Boiarsky, C. R., Grove, L. K., Northrop, B. A., Phillips, M. T., Myers, F. N., and Earnest, P. J., "Women in the Profession: Results of Two National Surveys," *IEEE Trans. Prof. Comm.* **38**(2), 68–76 (1995).
- Book, D. L., and Sibeck, D. G., "Plasma Transport Through the Magnetopause by Turbulent Interchange Processes," *J. Geophys. Res.* **100**, 9567–9573 (1995).
- Borodkova, N. L., Zastenker, G. N., and Sibeck, D. G., "A Case and Statistical Study of Transient Magnetic Field Events at Geosynchronous Orbit and Their Solar Wind Origin," *J. Geophys. Res.* **100**, 5643–5656 (1995).
- Bristow, W. A., and Greenwald, R. A., "Estimating Gravity Wave Parameters from Oblique High-Frequency Backscatter: Modeling and Analysis," *J. Geophys. Res.* **100**, 3681–3692 (1995).
- Budman, C. A., "High-Confidence Reliability Assessment of Complex Systems Through Subsystem Testing," in *Proc. Int. Symp. on International Test and Evaluation Association*, pp. 113–114 (Oct 1994).
- Butler, M. H., Dakermanji, G., Goliasewski, L. T., Kusnierkiewicz, D. Y., Tarr, J. E., Temkin, D. K., and Carlsson, P. U., "Fault Tolerant Shunt Regulator for a Spacecraft Thermionic Nuclear Reactor," in *Proc. 12th Symp. on Space Nuclear Power and Propulsion*, pp. 39–44 (1995).
- Buttighoffer, A., Pick, M., Roelof, E. C., Hoang, S., Mangenay, A., Lanzerotti, L. J., Forsyth, R. J., and Phillips, J. L., "Coronal Electron Stream and Langmuir Wave Detection Inside a Propagation Channel at 4.3 AU," *J. Geophys. Res.* **100**, 3369–3381 (1995).
- Campbell, J. N., Raja, S. N., and Belzberg, A. J. (JHMI), and Meyer, R. A. (APL), "Hyperalgesia and the Sympathetic Nervous System," in *Touch, Temperature and Pain in Health and Disease, Mechanisms and Assessments*, J. Boivie, P. Hansson, and U. Lindblom (eds.), IASP Press, Seattle, pp. 249–265 (1994).
- Campbell, J. N., Raja, S. N., Selig, D. K., and Belzberg, A. J. (JHMI), and Meyer, R. A. (APL), "Diagnosis and Management of Sympathetically Maintained Pain," in *Progress in Pain Research and Management*, Vol. 1, H. L. Fields and J. C. Liebeskind (eds.), IASP Press, Seattle, pp. 85–100 (1994).
- Charles, H. K., Jr., "Materials/Design Considerations for MCMs," Chap. 3, in *MCM C/Mixed Technologies and Thick Film Sensors*, NATO ASI Series, Vol. 2, W. K. Jones et al. (eds.), Kluwer Academic Publishers, The Netherlands, pp. 177–193 (1995).
- Charles, H. K., Jr., and Romenesko, B. M., "Electronic Reliability, Quality Assurance, and Environmental Screening," in *ISHM Modular Series in Microelectronics*, R. W. Johnson (ed.), ISHM, The Microelectronics Society, Reston, VA, pp. 1–20 (1994).
- Davis, K. D., Meyer, R. A., Turnquist, J. L., Filloon, T. G., Pappagallo, M., and Campbell, J. N., "Cutaneous Injection of the Capsaicin Analogue, NE-21610," *Pain* **61**, 17–26 (1995).
- Decker, R. B., Krimigis, S. M., McNutt, R. L., Hamilton, D. C., and Collier, M. R., "Latitude-Associated Differences in the Low Energy Charged Particle Activity at Voyagers 1 and 2 During 1991 to Early 1994," *The High Latitude Heliosphere*, R. G. Marsden (ed.), *Space Sci. Rev.* **72**, 347–352 (1995).
- Demeio, L. (APL), Green, S. (NASA), and Monchick, L. (APL) "Effects of Velocity Changing Collisions On Line Shapes of HF in Ar," *J. Chem. Phys.* **102**(23), 9160–9166 (1995).
- Demeio, L., and Shizgal, B. D., "Wentzel-Kramers-Brillouin Approach to Time-Dependent Nucleation," in *AIAA Rarefied Gas Dynamics: Theory and Simulations*, Vol. 159, p. 682 (1994).
- Denton, R. E., Gary, S. P., Li, X., Anderson, B. J., LaBelle, J. W., and Lessard, M., "Low-Frequency Fluctuations in the Magnetosheath Near the Magnetopause," *J. Geophys. Res.* **100**, 5665–5679 (1995).
- Elphinstone, R. D., Hearn, D. J., Cogger, L. L., Murphree, J. S., Singer, H., Sergeev, V., Mursula, K., Klumpar, D. M., Reeves, G. D., Johnson, M., Ohtani, S., Potemra, T. A., Sandahl, I., Nielsen, E., Persson, M., Opgenoorth, H., Newell, P. T., and Feldstein, Y. I., "Observations in the Vicinity of Substorm Onset: Implications for the Substorm Process," *J. Geophys. Res.* **100**, 7937–7969 (1995).
- Elphinstone, R. D., Hearn, D. J., Cogger, L. L., Murphree, J. S., Wright, A., Sandahl, I., Ohtani, S., Newell, P. T., Klumpar, D. M., Shapshak, M., Potemra, T. A., Mursula, K., and Sauvaud, J. A., "The Double Oval UV Auroral Distribution, 2, The Most Poleward Arc System and the Dynamics of the Magnetotail," *J. Geophys. Res.* **100**, 12,093–12,102 (1995).
- Elphinstone, R. D., Murphree, J. S., Hearn, D. J., Cogger, L. L., Sandahl, I., Newell, P. T., Klumpar, D. M., Ohtani, S., Sauvaud, J. A., Potemra, T. A., Mursula, K., Wright, A., and Shapshak, M., "The Double Oval UV Auroral Distribution, 1, Implications for the Mapping of Auroral Arcs," *J. Geophys. Res.* **100**, 12,075–12,092 (1995).
- Farquhar, R. W., and Veverka, J., "Comet Nucleus Tour," in *Proc. IAA International Conf. on Low-Cost Planetary Missions*, Vol. 35, Suppl. 1995, pp. 247–255 (1995).
- Fristrom, R. M., "Flame Structure and Processes," J. R. Apel (ed.), Oxford University Press, New York (May 1995).
- Fuselier, S. A., Anderson, B. J., and Onsager, T. G., "Particle Signatures of Magnetic Topology at the Magnetopause: AMPTE/CCE Observations," *J. Geophys. Res.* **100**, 11,805–11,821 (1995).
- Glaser, E. R., Kennedy, T. A., Doverspike, K., Rowland, L. B., and Gaskill, D. K. (NRL), Freitas, J. A., Jr. (Sachs/Freeman Assoc.), Khan, M. A., Olson, D. T., and Kuznia, J. N. (APA Optics), and Wickenden, D. K. (APL), "Optically Detected Magnetic Resonance of GaN Films Grown by Organometallic Chemical-Vapor Deposition," *Phys. Rev. B* **51**(19), 13,326–13,336 (May 1995).
- Gloeckler, G., Roelof, E. C., Ogilvie, K. W., and Berdichevsky, D. B., "Proton Phase Space Densities ($0.5 < E_p < 5$ MeV) at Mid-Latitude from Ulysses SWICS/HI-SCALE Measurements," *Space Sci. Rev.* **72**, 321–326 (1995).
- Hawkins, S. E. III, Cheng, A. F., Lanzerotti, L. J., and MacLennan, C. G., "Co-Rotation of Jupiter's Three-Dimensional Magnetosphere," *Adv. Space Res.* **16**, 191–195 (1995).
- Iannuzzelli, R. J., and Hughes, A. S., "ISAR Imaging Via Discrete Multi-Tone Transmit & Channelized Narrowband Receive Processing," in *Proc. SPIE's Int. Symp. on Optical Science, Engineering & Instrumentation, Radar/Lidar Processing and Applications*, San Diego, CA, pp. 2562–2600 (Jul 1995).
- Kane, M., Decker, R. B., Mauk, B. H., and Krimigis, S. M., "Latitudinal and Radial Variation of Shock Associated ≥ 30 keV Ion Spectra and Anisotropies at Voyagers 1 and 2," in *The High Latitude Heliosphere*, R. G. Marsden (ed.), *Space Sci. Rev.* **72**, 353–358 (1995).
- Korotova, G. I., and Sibeck, D. G., "A Case Study of Transient Event Motion in the Magnetosphere and in the Ionosphere," *J. Geophys. Res.* **100**, 35–46 (1995).
- Ku, H. C., Gilreath, H. E., Raul, R., and Sommerer, J. C., "Direct Numerical Simulation of Jet Flow via Multi-Block Domain Decomposition Technique," *Contemp. Math.* **180**, 509–514 (1994).
- Kusnierkiewicz, D. Y., "Source Impedance, Transient Response, and Noise Characterization of the TOPAZ 2 Reactors," in *Proc.*

- 12th Symp. on Space Nuclear Power and Propulsion, AIP 324, Part 1, pp. 45–51 (1995).
- Lambrech, W. R. L., and Segal, B. (Case Western Reserve Univ.), Rife, J. (NRL), Hunter, W. R. (Sachs/Freeman Assoc.), and Wickenden, D. K. (APL), "UV Reflectivities of GaN: Theory and Experiment," *Phys. Rev. B* 51(19), 13,516–13,532 (May 1995).
- Matsuzawa, M., and Potember, R. S. (APL), and V. Krauthamer (NIH), "Use of Chemically Patterned Substrate to Study Directional Effects of Damaging Electrical Stimulation on Cultured Neuroblastoma Cells," *Brain Res.* 667, 47–53 (1994).
- Maurer, R. H., Bargeron, C. B., Nhan, E., and Phillips, T. E., "Reliability of Low-Power Laser Diodes," in *Proc. 1995 SPIE Aerospace Conf.* 2482, 326–329 (1995).
- Meyer, R. A. (APL), and Campbell, J. N., and Raja, S. N. (JHMI), "Peripheral Neural Mechanisms of Nociception," in *Textbook of Pain*, 3rd Ed., R. Melzack and P. D. Wall (eds.), Churchill Livingstone, pp. 13–44 (1994).
- Monaldo, F. M., and Chapman, R. D., "A Novel Wave Height Sensor," *J. Atmos. Oceanic Tech.* 12, 190–196 (1995).
- Osiander, R., Spicer, J. W. M., and Murphy, J. C., "Microwave-Source Time-Resolved Infrared Radiometry for Monitoring of Curing and Deposition Processes," in *Proc. Thermosense XVII: An International Conf. on Thermal Sensing and Imaging Diagnostic Applications*, SPIE, Orlando, FL, pp. 194–204 (1995).
- Pace, D., "Affordable and Effective Verification, Validation, and Accreditation of Computer Simulations," in *Proc. 1995 Summer Computer Simulation Conf.*, Ottawa, Canada, pp. 182–188 (Jul 1995).
- Peacock, K., "Design and Calibration of the MSX-UVISI Spectrographs," in *Proc. Int. Workshop on V/UV and X-Ray Radiometry for Space-Based Instruments*, pp. 77–80 (1995).
- Raney, R. K., "Radarsat, Tropical Forests, and Policy Imperatives," Chap. 14, in *The Canadian Remote Sensing Contribution to Understanding Global Change*, E. LeDrew, M. Strome, and F. Hegui (eds.), University of Waterloo Press, Waterloo, Canada (1995).
- Roberts, J. C., and Schaefer, E. D., "A Comparison of Finite Element and Test Results on the Dynamic Characteristics of Butted and Overlapped Ply Laminated Cylinders," *J. Compos. Mater.* 27(7), 868–880 (1995).
- Ruohoniemi, J. M., and Greenwald, R. A., "Observations of IMF and Seasonal Effects in High-Latitude Convection," *Geophys. Res. Lett.* 22, 1121–1124 (1995).
- Spall, J. C., "Uncertainty Bounds for Multivariate M-Estimates in Small Samples," in *Proc. American Statistical Assoc. Section on Physical and Engineering Sciences*, Toronto, Canada, pp. 126–131 (Aug 1994).
- Starr, S. (MITRE), and Pace, D. (APL), "Developing the Intellectual Tools Needed by the Information Warfare Community," in *Proc. First Int. Symp. on Command and Control Research & Technology*, National Defense University, Ft. McNair, Washington, DC (Jun 1995).
- Stern, S. A., Lunine, J., Friedlander, A., and Cheng, A. F., "Future Neptune and Triton Missions," in *Neptune and Triton*, D. Cruikshank and M. Matthews (eds.), University of Arizona Press (1995).
- Suter, J. J., Maurer, R. H., and Kinnison, J. D., "Ionizing and Particle Radiation," in *IEEE Guide for Measurement of Environmental Sensitivities of Standard Frequency Generators*, IEEE STD, pp. 1193–1994 (1995).
- Thayer, J. P., Crowley, G., Niciejewski, R. J., Killeen, T. L., Buchau, J., and Reinish, B. W., "Ground-based Observations of Ion/Neutral Coupling at Thule and Qanaq, Greenland," *J. Geophys. Res.* 100, 12,189–12,199 (1995).
- Treede, R.-D., Meyer, R. A., and Lesser, R. P., "Similarity of Threshold Temperatures for First Pain Sensation, Laser-Evoked Potentials, and Nociceptor Activation," in *Proc. 7th World Congress on Pain, Progress in Pain Research and Management*, Vol. 2, G. F. Gebhart, D. L. Hammond, and T. S. Jensen (eds.), IASP Press, Seattle, pp. 857–865 (1994).
- Tropf, W. J., "Temperature-Dependent Refractive Index Models for BaF₂, CaF₂, MgF₂, SrF₂, LiF, NaF, KCl, ZnS, and ZnSe," *Opt. Eng.* 34(5), 1369–1373 (1995).
- Yamaguchi, S., Kistenmacher, T. J., Viands, C. A., Hu, H., and Potember, R. S., "Scanning Microscopy of the Conducting Metal Complex Copper bis-(2,5-Dimethyl-N,N'-Dicyanoquinodimine)," *Synthetic Met.* 63 (1), 61–65 (1994).
- Yamauchi, M., Lundin, R., and Potemra, T. A., "Dynamic Response of the Cusp Morphology to the Interplanetary Magnetic Field Changes: An Example Observed by Viking," *J. Geophys. Res.* 100, 7661–7670 (1995).

PRESENTATIONS

APL staff members were among those who gave the following unclassified presentations:

- Belton, K. M., Nelson, S. E., and Halbrook, L. P., "Electronic Publishing for Prepress, Internet, and Multimedia," Meeting of the Metro Baltimore Chapter of the Society for Technical Communication, JHU/APL, Laurel, MD (10 May 1995).
- Budman, C. A., "High-Confidence Reliability Assessment of Complex Systems Through Subsystem Testing," Int. Test and Evaluation Association Symp., Baltimore, MD (3–6 Oct 1994).
- Burdick, S., Boies, M. T., Uy, O. M., Erlandson, R. E., Lesho, J., and Cooper, S. B., "Certification of the MSX Contamination Instrument Data," 5th Annual Symp. on Infrared Radiometric Sensor Calibration, Utah State University Space Dynamics Laboratory, Logan, UT (8–11 May 1995).
- Cheng, A. F., and Santo, A. G., "Near Earth Asteroid Rendezvous Project, First Launch of the NASA Discovery Program," AIAA Conf. on Space Manufacturing, Princeton, NJ (4–7 May 1995).
- Crowley, G., "High Latitude TGCM Results for the 10-Day Campaign," CEDAR 10-Day Campaign Workshop, Boulder, CO (7 Jan 1995).
- , "Recent Advances in Neutral Density Modeling at APL," Air Force Density Workshop, Colorado Springs, CO (29 Mar 1995).
- , "SSUSI Ground Data Analysis System Schedule and Status," DMSP UV Sensors Meeting, Colorado Springs, CO (8 Mar 1995).
- , "Use of MSX for Validation of SSUSI Density Algorithms," Air Force Density Workshop, Colorado Springs, CO (29 Mar 1995).
- Devereux, W. S., "Extended Navy Test Bed Wideband Translator Overview and Development Status," SP201-ENTB Sponsor, JHU/APL, Laurel, MD (1 May 1995).
- Donohue, D. J., Stoyanov, B. J., McCally, R. L., and Farrell, R. A., "Relating Birefringent Properties of the Cornea to Lamellar Structures," ARVO Annual Meeting, Ft. Lauderdale, FL (14 May 1995).
- Elbaz, J., "Technical Illustration Using Photo-shop, Freehand, and Illustrator," PMM Corporation Conf. Center, Hunt Valley, MD (17 May 1995).
- Freund, D. E., McCally, R. L., and Farrell, R. A. (APL), and Sliney, D. J. (U.S. Army), "Theoretical Investigations of Retinal Temperature Changes Resulting from Laser Diode Exposure," ARVO Annual Meeting, Ft. Lauderdale, FL (14 May 1995).
- Gary, J. B., Fosko, G. J., and Ohtani, S. I., "Coordinated Observations of Convection Vortices and FACs from SuperDARN and Freja," CEDAR Meeting, Boulder, CO (25–30 Jun 1995).
- Grunberger, P. J., and Elliott, H. H., "The Midcourse Space Experiment Satellite Ground Station," 41st Int. Instrumentation Symp. of the Instrument Society of America, Telemetry Systems Section, Aurora, CO (7–11 May 1995).
- Iannuzzelli, R. J., and Hughes, A. S., "ISAR Imaging via Discrete Multi-Tone Transmit and Channelized Narrowband Receive Processing," SPIE Int. Symp. on Optical Science, Engineering & Instrumentation, RADAR/LIDAR Processing and Applications, San Diego, CA (13 Jul 1995).
- Jenkins, J. E., Dakermanji, G., Butler, M. H., and Carlsson, U. P., "Near Earth Asteroid Rendezvous Power Subsystem," Space Power Workshop, Albuquerque, NM (17–20 Apr 1995).
- Jensen, J. R., "On-Orbit Performance Validation Plan for the Geosat Follow-On Radar Altimeter," IGARSS-95, Florence, Italy (10–14 Jul 1995).
- Keath, E. P., McEntire, R. W., and Mitchell, D. G., "An Ion Composition Telescope for Measuring Energetic Magnetospheric Charged and Neutral Atoms," AGU Chapman Conf. on Measurement Techniques for Space Plasmas, Santa Fe, NM (3–7 Apr 1995).
- Ku, H., and Popel, A. S., "The Multi-Grid-Mask Numerical Method for Solution of Incompressible Navier–Stokes Equations," 5th Copper Mountain Conf. on Multigrid Methods, Copper Mountain Summit, CO (6 Apr 1995).
- Kues, H. A. (APL), D'Anna, S. A., Johnson, M. A., and Green, W. R. (Johns Hopkins Medical School), and Monahan, J. C. (Food and Drug Admin.), "Retinal Damage Following Repeated Exposure to Pulsed 1.25 GHz at an Average Local SAR of 4 mW/g," 17th Annual Meeting of the Bioelectromagnetics Society, Boston, MA (20 Jun 1995).

- Kumar, A., and Rust, D. M., "Evolution of Solar Filaments into Interplanetary Magnetic Clouds: Effect of Magnetic Helicity Conservation," American Astronomical Society 26th Meeting of the Solar Physics Division, Memphis, TN (4-8 Jun 1995).
- Kusnierkiewicz, D. Y., Cheng, A. F., McAdams, J. V., Vernon, S. R., and Shoemaker, E. M., "Conceptual Design of the Near Earth Asteroid Returned Sample (NEARS) Mission," Space Studies Institute Conf. on Space Manufacturing, Princeton, NJ (4-7 May 1995).
- Lanzerotti, L. J., Gold, R. E., Armstrong, T. P., MacLennan, C. G., Krimigis, S. M., Pick, M., Roelof, E. C., Sarris, E. T., Simnett, G. M., Anderson, K. A., Lin, R. P., Hawkins, S. E. III, and Tappin, S. J., "Over the South Solar Pole: Low Energy Interplanetary Charged Particles," European Geophysical Society XX General Assembly, Hamburg, Germany (3-7 Apr 1995).
- Lui, A. T. Y., "Generation of Field-Aligned Current by Localized Current Reduction Mechanism," EGS Conf., Hamburg, Germany (3-7 Apr 1995).
- Marsh, D., Skinner, W. R., Yee, J.-H., Burrage, M. D., Hays, P. B., Marshall, A. R., and Ortland, D. A., "High Resolution Doppler Imager Measurement of Mesospheric Ozone," CEDAR Meeting, Boulder, CO (25-30 Jun 1995).
- McCally, R. L. (APL), Connolly, P. J., Jain, S., Green, W. R., and Azar, D. T. (JHU Medical School), and Aslanides, I. M., and Silverman, R. H. (Cornell University Medical College), "Investigation of Haze Following Phototherapeutic Keratectomy Using Scatterometry, High-Frequency Ultrasound and Histology," ARVO Annual Meeting, Ft. Lauderdale, FL (14 May 1995).
- McEntire, R. W., "Techniques for Measuring Energetic Ions in Space Plasmas," AGU Chapman Conf. on Measurement Techniques for Space Plasmas, Santa Fe, NM (3-7 Apr 1995).
- Meng, C.-I., Paxton, L. J., Romick, G. J., Anderson, D. E., Morrison, D., Crowley, G., McEvaddy, P., Yee, J.-H., and Carbary, J. F., "Remote Sensing from 110 nm to 900 nm from Space," European Symposium on Satellite Remote Sensing II, Paris, France (25-29 Sep 1995).
- Mitchell, D. G., Krimigis, S. M., Cheng, A. F., Jaskulek, S. E., Keath, E. P., Mauk, B. H., McEntire, R. W., Roelof, E. C., Schlemm, C. E., Tossman, B. E., and Williams, D. J., "The Imaging Neutral Camera (INCA) for the NASA Cassini Mission to Saturn and Titan, and Possibilities for the Future," AGU Chapman Conf. on Measurement Techniques for Space Plasmas, Santa Fe, NM (3-7 Apr 1995).
- Monchick, L., "Q-Branch Raman Scattering and Modern Kinetic Theory," Dept. of Energy, Office of Basic Energy Sciences, 17th Combustion Research Conf., Lake Geneva, WI (31 May 1995).
- Norton, J. R., "Advanced Technology Oscillator for Small Spacecraft," IEEE International Frequency Control Symp., San Francisco, CA (2 Jun 1995).
- Ohtani, S.-I., "Substorm Onset Signatures in the Near-Earth Magnetotail," University of Tokyo, Tokyo, Japan (25 Apr 1995).
- Pace, D., "Seminar Wargaming Insights About Theater Missile Defense Requirements and Operations," Eighth Multinational Conf. on Theater Missile Defense, London, UK (6-9 Jun 1995).
- Paranicas, C. P., and Cheng, A. F., "Microsignatures from Satellites and Co-Orbiting Material," Cassini, MIMI Science Team Meeting, JHU/APL, Laurel, MD (5 Jun 1995).
- Pasternak, J., and Jain, S. (JHU Medical School), McCally, R. L. (APL), and Stark, W. J., and Azar, D. T. (JHU Medical School), "Corneal Haze Evaluation After Excimer Laser Photorefractive Keratectomy for High Myopia," 54th Clinical Meeting of the Wilmer Ophthalmological Institute, Baltimore, MD (27 Apr 1995).
- Paxton, L. J., Meng, C.-I., Fountain, G. H., Morrison, D., Crowley, G., and Ogorzalek, B. S., "Special Sensor Ultraviolet Spectrographic Imager (SSUSI): An Instrument Description," European Symp. on Satellite Remote Sensing II, Paris, France (25-29 Sep 1995).
- Raney, R. K., "A Delay/Doppler Radar Altimeter for Ice Sheet Monitoring," Polar Ice Group, Mission to Planet Earth, NASA Headquarters, Washington, DC (14 Jun 1995).
- , "Delay/Doppler Compensation: A New Concept for Radar Altimetry," Oceanographer of the Navy, National Observatory, Washington, DC (2 May 1995).
- Sevaston, G. E., Argrady, F., Allen, J., Bauer, F., Bauer, T., Bone, J., Caldwell, D., Casserino, J., Challoner, D., Clingan, J., Crum, R., Darone, T., Dorsky, L., Dynes, R., Flanagan, R., Graves, P., Gambi, J., Krueger, D., Meya, R., Pruett, D., Radford, W., Rodriguez-Alvarez, O., and Ward, D., "The AIAA Spacecraft Guidance, Navigation, and Control Interface Standards Initiative: Progress to Date (AAS-95-041)," 18th Annual AAS Guidance and Control Conf., Keystone, CO (1-5 Feb 1995).
- Sibeck, D. G., "Magnetosheath Plasma Fluctuations," Princeton Plasma Physics Laboratory, Princeton, NJ (18 Apr 1995).
- Silver, D. M. (APL), and Geyer, O. (Sourasky Medical Ctr., Tel Aviv), "The Pressure-Volume Relation for the Living Human Eye," Annual Meeting of the Association for Research in Vision and Ophthalmology (ARVO), Ft. Lauderdale, FL (17 May 1995).
- Silver, D. M. (APL), and Geyer, O., Michaeli-Cohen, A., Neudorfer, M., and Lazar, M. (Sourasky Medical Ctr., Tel Aviv), "The Mechanism of Intraocular Pressure Rise During Cyclotherapy," Annual Meeting of the Association for Research in Vision and Ophthalmology (ARVO), Ft. Lauderdale, FL (15 May 1995).
- Silver, D. M. (APL), and Michaeli-Cohen, A., Versano, D., Neudorfer, M., Dzhanor, R., and Geyer, O. (Sourasky Medical Ctr., Tel Aviv), "Reproducibility of Topographic Measurements of the Normal and Glaucomatous Optic Nerve Head," Annual Meeting of the Association for Research in Vision and Ophthalmology (ARVO), Ft. Lauderdale, FL (18 May 1995).
- Spall, J. C., "Multivariate Stochastic Optimization," Annual Banquet of Md. Chapter of America Statistical Assoc., Columbia, MD (15 Jun 1995).
- , "Optimization in Operations Research and Test and Evaluation," Military Operations Research Symp., Annapolis, MD (6-8 Jun 1995).
- , "Stochastic Approximation," Univ. of Virginia Engineering Seminar, Charlottesville, VA (14 Apr 1995).
- , "Test and Evaluation with Limited Data," Military Operations Research Symp., Annapolis, MD (6-8 Jun 1995).
- , "Uncertainty Bounds for Multivariate M-Estimates in Small Samples," Annual Meeting of ASA, Toronto, Canada (9-12 Aug 1994).
- Tacey, M. P., and Ebbert, E. L., "Surface Combatant Force Level Study (SCFLS) Effectiveness/Sufficiency Analysis," 63rd Military Operations Research Symposium, US Naval Academy, Annapolis, MD (7 Jun 1995).
- Tuli, S. W., and Azar, D. T. (JHU Medical School), McCally, R. L. (APL), and Benson, R. A., Khoury, J. M., and Jain, S. (JHU Medical School), "Corneal Haze and Keratometry After RK-PRK Combinations in Rabbits," ARVO Annual Meeting, Ft. Lauderdale, FL (14 May 1995).
- Waddell, R. L., Posner, A. S., Landshof, J. A., Williams, K. E., and Strikwerda, T. E., "Joint Development of the Near Attitude System Test and Integration Equipment (NASTIE) with the Mission Operations Analysis Toolkit (MOAT) for the Near Mission," 18th Annual AAS Guidance and Control Conf., Keystone, CO (1-5 Feb 1995).
- White, M. E., and Ault, D. A., "Hypersonic Shock Wave/Turbulent Boundary Layer Interactions in the Vicinity of an Expansion Corner," AIAA Sixth Int. Aerospace Planes and Hypersonics Technologies Conf., Chattanooga, TN (3-7 Apr 1995).
- Zanetti, L. J., Potemra, T. A., Anderson, B. J., and Acuña, M. H., "The Freja Field Experiment," AGU Chapman Conf. on Measurement Techniques for Space Plasmas, Santa Fe, NM (3-7 Apr 1995).
- Zimm, A. D., "Impact of Theater," Military Operations Research Society 63rd National Symp., Annapolis, MD (7 Jun 1995).

The following papers were presented at the American Geophysical Union Spring Meeting, Baltimore, MD (30 May-2 Jun 1995):

- Anderson, B. J., Erlandson, R. E., Arnoldy, R. L., Engrebretson, M. J., and Alford, J., "Statistical Analysis of the Correlation Between Pc 1 Burst Events at South Pole Station and AMPTE/CCE."
- Anagnostopoulos, G. C., Krimigis, S. M., Sarris, E. T., Marchavilas, P., Balogh, A., and Daugherty, M., "Fine Time Structure of Energetic ($E > 50$ keV) Ion Profiles Observed Upstream from Jupiter's Bow Shock."
- Angelopoulos, V., Mitchell, D. G., McEntire, R. W., Williams, D. J., Lui, A. T. Y., Christon, S. P., Kokubun, S., Yamamoto, T., Mukai, T., Saito, Y., Reeves, G., Hughes, W. J., Friis-Christensen, E., and Troshichev, O., "Geotail/IMP-8 Observations in the Magnetotail During the Course of a Substorm."
- Cheng, A. F., "Dust Production and Levitation from Asteroids."

- Gary, J. B., Zanetti, L. J., Anderson, B. J., and Holland, D. B., "Real Time Space Weather Monitoring on the WWW using Freja *in situ* Magnetic Field Measurements."
- Gold, R. E., Lanzerotti, L. J., Anderson, K. A., Armstrong, T. P., Hawkins, S. E. III, Krimigis, S. M., Lin, R. P., MacLennan, C. G., Pick, M., Roelof, E. C., Sarris, E. T., Simnett, G. M., and Tappin, S. J., "Ulysses from South Pole to Equator: Low Energy Interplanetary Charged Particle Measurements."
- Hawkins, S. E. III, Krupp, N., Cheng, A. F., Lanzerotti, L. J., and MacLennan, C. G., "Latitudinal Dependence of Ion Composition in the Jovian Magnetosphere as Measured by the HI-SCALE Instrument Aboard Ulysses."
- Holland, D. B., Zanetti, L. J., Gary, J. B., Anderson, B. J., and Erlandson, R. E., "Magnetic Field Experiment Data On-Line Archive Processing System."
- Kroptokin, A. P., Sitnov, M. I., and Lui, A. T. Y., "A Kinetic Approach to Localized Magnetic Merging for Initial Substorm Expansion Activities."
- Krupp, N., Roelof, E. C., Gold, R. E., and Lanzerotti, L. J., "Energetic Particle Fluxes and Anisotropies During the June 1991 Events: Ulysses HI-SCALE Results."
- Kumar, A., and Rust, D. M., "Evolution and Solar Origins of Interplanetary Magnetic Clouds: Role of Magnetic Helicity Conservation."
- Kupperman, D. G., Paxton, L. J., Swaminathan, P. K., and Yee, J.-H., "Thermospheric Hot N(⁴S) Contribution to Odd Nitrogen Chemistry."
- Lui, A. T. Y., Williams, D. J., McEntire, R. W., Jacquey, C., Angelopoulos, V., Christon, S. P., Kokubun, S., and Yamamoto, T., "Energetic Ion Composition in F30x-Ropes/Plasmoids."
- McEntire, R. W., Williams, D. J., Lui, A. T. Y., Angelopoulos, V., and Christon, S. P., "Observations of Energetic Ions in the Earth's Magnetotail with the Geotail/EPIC Instrument."
- Meng, C.-I., Feldstein, Y.-I., and Newell, P. T., "The Morphology of Nightside Precipitation."
- Mitchell, D. G., Angelopoulos, V., Williams, D. J., McEntire, R. W., Krimigis, S. M., and Christon, S. P., "Substorm Associated Flow Reversals in Energetic Particles Seen at Geotail and IMP-8: Implications for Time History of Location of Energetic Particle Sources."
- Murchie, S. L., and Pieters, C. M., "Spectral Properties and Rotational Spectral Variations of Asteroid 433 Eros at 0.33–2.5 μm : Implications for Surface Composition and the NEAR Mission."
- Newell, P. T., and Meng, C.-I., "The Creation of Theta Aurora."
- Ohtani, S.-I., Spence, H. E., Takahashi, K., Higuchi, T., and Lui, A. T. Y., "AMPTE/CCE and SCATHA Simultaneous Observations of Magnetic Signatures Associated with a Substorm Onset."
- Paranicas, C. P., and Cheng, A. F., "Charged Particle Phase Space Densities of Uranus and Neptune."
- Paxton, L. J., Crowley, G., Meng, C.-I., Hopkins, M. M., Williams, K. E., Spiz, T., Suther, L., Morrison, D., Strickland, D. J., Evans, J. S., and Wright, K. C., "Interactive Data Analysis and Display of Far Ultraviolet Data."
- Potemra, T. A., "The Relationship of Large-Scale Birkeland Currents and Pc 5 Pulsations in the Dayside High Latitude Regions Determined from Viking Observations."
- Rust, D. M., "Magnetic Helicity in the Solar Atmosphere."
- Rust, D. M., and Kumar, A., "The Origin of Solar Eruptions: Helical $m = 1$ Link Instability in Chromospheric Filaments."
- Sibeck, D. G., Borodkova, N. L., and Zastenker, G. N., "A Statistical Study of Transient Events at Geosynchronous Orbit."
- Sitnov, M. I., and Lui, A. T. Y., "Quasineutral Sheet Tearing Instability Induced by Electron Preferential Acceleration from Stochasticity."
- Watanabe, M., Iijima, T., Nakagawa, M., Potemra, T. A., Ohtani, S., and Newell, P. T., "Dayside Field-Aligned Current Systems During Periods of Extremely Small IMF B_y and B_z ."
- Yoon, P. H., Drake, J. F., Lui, A. T. Y., and Chang, C. L., "Cross-Field Current Instabilities for Thin Magnetotail Current Sheet."
- Zanetti, L. J., "Magnetic Field Measurements: A Simple Auroral Current Zone Detector."
- The following papers were presented at the International Union of Geodesy and Geophysics XXI General Assembly, Boulder, CO (2–14 Jul 1995):
- Anderson, B. J., "Interactions of Proton Cyclotron Waves and Ions in the Outer Magnetosphere."
- Anderson, B. J., Erlandson, R. E., Strangeway, R., and Fuselier, S. A., "Electromagnetic Ion Cyclotron Waves Observed at Low L by AMPTE/CCE."
- Anderson, B. J., Gary, J. B., Potemra, T. A., and Zanetti, L. J., "Variations of the Earth's Main Field Geometry from 1991 to 1995: UARS Observations."
- Anderson, B. J., Mauk, B. H., Denton, R. E., and Fuselier, S. A., "Characteristics of Proton Cyclotron Wave Magnetic Field Fluctuations."
- Anderson, B. J., Phan, T. D., and Fuselier, S. A., "Ram Pressure and Magnetic Shear Dependence of the Plasma Depletion Layer: Evidence for Maximum Reconnection Rate."
- Anderson, B. J., and Takahashi, T., "Night-time Transient Field Line Resonances."
- Angelopoulos, V., Coroniti, F. V., Kennel, C. F., Kivelson, M. G., Walker, R. J., Russell, C. T., McPherron, R. L., Sanchez, E., Meng, C.-I., Baumjohann, W., Reeves, G. D., Belian, R. D., Friis-Christensen, E., and Sutcliffe, P. R., "CDAW-Type Analysis of a Bursty Bulk Flow Event During the Course of a Substorm."
- Angelopoulos, V., Mitchell, D. G., McEntire, R. W., Williams, D. J., Lui, A. T. Y., Christon, S. P., and Kokubun, S., "Energetic Particle Anisotropy Reversals Observed by Geotail in Association with a Substorm."
- Krimigis, S. M., McEntire, R. W., Sibeck, D. G., Williams, D. J., Roelof, E. C., Wilken, B., Armstrong, T. P., Fritz, T. A., and Lanzerotti, L. J., "Galileo/EPD Observations of Upstream Ions and Electrons During Earth Flybys in December of 1990, 1992."
- Kroptokin, A. P., and Lui, A. T. Y., "Quasi-Static Evolution of the Magnetosphere: The Substorm Growth Phase."
- Lui, A. T. Y., Williams, D. J., McEntire, R. W., Angelopoulos, V., Jacquey, C., Christon, S. P., Yamamoto, T., and Kokubun, S., "A Preliminary Assessment of Energetic Ion Species in Flux Ropes/Plasmoids."
- Mauk, B. H., Gary, S. A., Kane, M., Keath, E. P., Krimigis, S. M., and Armstrong, T. P., "Hot Plasmas of Jupiter's Inner Magnetosphere."
- McEntire, R. W., Williams, D. J., Lui, A. T. Y., Angelopoulos, V., and Christon, S. P., "Observations of Energetic Ions in the Earth's Magnetotail with the GEOTAIL/EPIC Instrument."
- Mitchell, D. G., and Russell, C. T., "Current Density and Scale in the Cross-Tail Current Sheet During Substorm Growth Phase and Collapse, and During Bursty Bulk Flows."
- Ohtani, S.-I., "Comparisons of the Spatial Development of Substorms Between the Near-Earth Tail and the Ionosphere."
- Ohtani, S.-I., Potemra, T. A., Newell, P. T., and Zanetti, L. J., "Four Sheet Structure of Dayside Large-Scale Field-Aligned Current Systems."
- , "Response of the Large-Scale Dayside Electrodynamic Process to Variations in the Interplanetary Magnetic Field."
- , "Simultaneous Preenoon and Postnoon Observations of Three Field-Aligned Current Systems from Viking and DMSP-F7."
- Potemra, T. A., "A Survey of Pc-5 Pulsations in the Dayside High Latitude Regions Observed by Viking."
- , "The Evolution of Noon Birkeland Currents."
- Zanetti, L. J., Kappenman, J., and Feero, W., "Real-Time Ionospheric Currents from Freja Magnetic Field Measurements and Geomagnetic Induced Currents from Sunburst."