

PUBLICATIONS

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

- Anderson, B. J., "An Overview of Spacecraft Observations of 10 s to 600 s Period Magnetic Pulsations in the Earth's Magnetosphere," *Geophys. Monograph* **81**, 25–43 (1994).
- Anderson, B. J. (APL), and Fuselier, S. A. (Lockheed), Correction to "Magnetic Pulsations from 0.1 to 4.0 Hz and Associated Plasma Properties in the Earth's Subsolar Magnetosheath and Plasma Depletion Layer," *J. Geophys. Res.* **99**(A4), 6149–6150 (1994).
- Anderson, B. J. (APL), Fuselier, S. A. (Lockheed), Gary, S. A. (APL), and Denton, R. E., "Magnetic Spectral Signatures in the Earth's Magnetosheath and Plasma Depletion Layer," *J. Geophys. Res.* **99**(A4), 5877–5891 (1994).
- Anderson, B. J., and Newell, P. T. (APL), Yamamoto, T., and Sato, N. (Univ. Tokyo), "Propagation of Compressional Pc 3 Pulsations from Space to the Ground: A Case Study Using Multipoint Measurements," *Geophys. Monograph* **81**, 355–363 (1994).
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- Bhatnagar, V., Poret, J. C., and Suter, J. J., "Fiber-Optic Link for Intrasatellite RF Communications," SPIE Int. Symp. on Space Optics, Garmisch-Partenkirchen, Germany (18–22 Apr 1994).
- Bhatnagar, V., Poret, J. C., Suter, J. J., Ravich, W. J., and Giannini, J. A., "Quantitative Size Measurement of Features Viewed Through a Video Endoscope," SPIE Int. Symp. on Biomedical Optics, Los Angeles, CA (22–28 Jan 1994).
- Bishop, J., Strickland, D. J., Biczel, C., Cox, R., Anderson, D. E., and Romick, G. J., "Optical Backgrounds: Prediction and Analysis Codes (OBPAC), A Software Package for Modeling of Space-Borne Optical Sensor Data," Ultraviolet Technology V, San Diego, CA (24–29 Jul 1994).
- Blum, B. I., "The Evolving Role of Hospital Information Systems," Medical Informatics in Europe 1994, European Federation for Medical Informatics, Lisbon, Portugal (22–26 May 1994).
- Bokulic, R. S., "Lightsat Communications Technology for Deep Space and Near-Earth Applications," IEEE MTT-S Int. Microwave Symp., San Diego, CA (23 May 1994).
- Braunstein, R. E., and Stark, W. J. (JHMI), McCally, R. L. (APL), Connolly, P. J., and Azar, D. T. (JHMI), "Objective Measurement of Corneal Haze in Human Corneas Following Excimer Laser Keratectomy," Wilmer Ophthalmological Inst. 53rd Clinical Meeting, Baltimore, MD (21–23 Apr 1994).
- Bryden, W. A., Ecelberger, S. A., Morgan, J. S., and Kistenmacher, T. J., "Growth of Magnetron-Sputtered InN on AlN-Seeded (00.1) Sapphire," 1992 March Meeting of the Am. Physical Soc., Indianapolis, IN (16–20 Mar 1992).
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- Burgan, M. W., "Standard Nomenclature and Terminology in Scientific Communication," 41st Annual Conf. Soc. for Technical

PRESENTATIONS

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

- Anderson, B. J., "Ground-Satellite Pc 1 Waves Research Plans," Experimenters Meeting, NSF Division of Polar Programs, Yerkes Observatory, Williams Bay, WI (Mar 1994).
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- Kistenmacher, T. J., Ecelberger, S. A., and Bryden, W. A., "Seeded Heteroepitaxy and Overgrowth of InN Films: Nucleation with Lattice Mismatched AlN."
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- The following papers were presented at the Int. Conf. on Substorms-2 (ICS-2), Fairbanks, AK (7-11 Mar 1994):
- Jacquey, C., Parks, G. K., Sauvaud, J. A., and Mitchell, D. G., "Spatio-Temporal Properties of the Plasma Sheet Recoveries: An ISEE 1/2 Measurements Statistical Study."
- Lui, A. T. Y., "Mechanism for the Substorm Current Wedge."
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- Mitchell, D. G., "Particle Observations in the Plasma Sheet During Substorm Associated Current Sheet Disruptions."
- Ohtani, S.-I., "The Ballooning Stability of the Near-Earth Magnetotail."
- Ohtani, S.-I., Higuchi, T., Lui, A. T. Y., and Takahashi, K., "Fractal Analysis of Magnetic Signatures Associated with Tail Current Disruption: An Implication of the Importance of Ions for the Triggering Instability."
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- Bryden, W. A., Ecelberger, S. A., and Kistenmacher, T. J., "Thin Films of Indium Nitride by ECA-Assisted Reactive Magnetron Sputtering."
- Kistenmacher, T. J., Ecelberger, S. A., and Bryden, W. A., "Buffer Layer Thickness and the Properties of InN Thin Films on AlN-Seeded (00.1) Sapphire and (111) Silicon."
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- Wickenden, D. K., Miragliotta, J., Bryden, W. A., Kistenmacher, T. J., "Thermally Annealed GaN Nucleation Layers and the MOCVD Growth of Si-Doped GaN Films on (0011) Sapphire."
- The following papers were presented at the NNSS Management Meeting at Detachment Bravo, Minneapolis, MN (12 Apr 1994):
- Pryor, L. L., "Disaster Back-Up."
- Pryor, L. L., "Interferometrics Progress Report APL."
- Pryor, L. L., "NOVA II AGC Test Report."
- The following papers were presented at the 19th General Assembly of the European Geophys. Soc., Univ. of Grenoble, France (25-29 Apr 1994):
- Anagnostopoulos, G. C., Sarris, E. T., Kaliabetsos, G. D., Raptis, S., Trochoutsos, P. C., Marhavilas, P. K., and Krimigis, S. M., "On the Origin of the Forward Velocity Dispersion Effect of Ion Events Upstream from the Earth's and Jupiter's Bow Shock."
- Anagnostopoulos, G. C., Sarris, E. T., Marhavilas, P. K., Trochoutsos, P. C., and Krimigis, S. M., "The Inverse Velocity Dispersion of the Upstream Ions as a Result of Magnetospheric Activity."
- Janzerotti, L. J., Sarris, E. T., Armstrong, T. P., MacLennan, C. G., Sinnott, G. M., Cheng, A. F., Gold, R. E., Thomson, D. J., Anderson, K. A., Hawkins, S. E., III, Krimigis, S. M., Pick, M., Roelof, E. C., and Tappin, S. J., "Overview of Selected Hot Plasma Measurements at Jupiter by the HI-SCALE Instrument on Ulysses."
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- McEntire, R. W., Williams, D. J., Lui, A. T. Y., Jacquey, C., Angelopoulos, V., Christon, S. P., Fairfield, D. H., and Kokubun, S., "Observations with the Geotail/EPIC Instrument of Energetic Ions in the Earth's Magnetotail."
- Pirronello, V., Janzerotti, L. J., MacLennan, C. G., Decker, R. B., and Krimigis, S. M., "Erosion and Modification of Outer Solar System Objects."
- The following papers were presented at the 40th Int. Instrumentation Symp., Baltimore, MD (1-5 May 1994):
- Boehme, M. H., and Moore, G. T., "A Computer-Controlled Suite of Ground Support Equipment for the AIT-1M GPS/Telemetry Transmitter."
- Mengel, E. E., "Compatibility Testing of BP-1M Target Rocket with ARIA Telemetry Aircraft."
- Rodeffer, C. C., "Instrumentation and Telemetry of a Missile Intercept Experiment."
- Trimble, W., and Stinehelfer, H., "Measurement of Antenna Coupling Eliminating Multipath."

- Warnke, L. L., "Receiving Site Equipment for Global Positioning System Translators."
- Whitworth, G. G., "Radio-Frequency Compatibility Testing of Suborbital Flight Test Telemetry Stations."

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- Anderson, B. J., Ho, G., Hamilton, D. C., Denton, R. E., and Fuselier, S. A., "Characteristics of Hot Proton Distributions Associated with Magnetospheric Ion Cyclotron Waves."
- Bristow, W. A., Greenwald, R. A., Sibeck, D. G., Jacquey, C., Williams, D. J., Engebretson, M. J., and Hughes, T. J., "Observation of Convection Vortices Due to Solar Wind Dynamic Pressure Variations."
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- Sibeck, D. G., "Inferences from the Size and Shape of the Magnetopause."
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- Bythrow, P. F., Anderson, B. J., Potemra, T. A., Zanetti, L. J., Winningham, J. D., and Chenette, D. L., "Filamentary Current Structures in the Post-noon Sector: Observations from UARS."
- Jacquey, C., Williams, D. J., McEntire, R. W., Lui, A. T. Y., Angelopoulos, V., Christon, S. P., Kokubun, S., Nagai, T., Yamamoto, T., Reeves, G. D., and Belian, R. D., "Energetic Ion Streams Observed by Geotail in the Distant Tail at Substorm Onsets."
- Sibeck, D. G., "Spotting FTE's."
- Sibeck, D. G., "Specification Codes Relevant to the Magnetopause Boundary."
- Sibeck, D. G., "Low-Altitude Signatures of the LBL."
- Sibeck, D. G., "Effects of IMF and Solar Wind Pressure Changes on the Ground and at Geosynchronous Orbit."
- Sibeck, D. G., and Zanetti, L. J., "Ionospheric Current Sources Storm Detection."

The following papers were presented at the Am. Control Conf., Baltimore, MD (29 Jun–1 Jul 1994):

- Chin, D. C., "Comparative Study of Gradient-Free Algorithms for System Optimization."
- Maryak, J. L., Spall, J. C., and Silberman, G. L., "Error Distribution and Confidence Bounds for Recursive Estimators in Nonlinear State-Space Models."
- Spall, J. C., and Chin, D. C., "Nuisance Parameters and Sensitivity Analysis."
- Spall, J. C., and Cristion, J. A., "Nonlinear Adaptive Control Using Neural Networks: Estimator with a Smoothed Form of Simultaneous Perturbation Gradient Approximation."

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Erlandson, R. E., Gatsonis, N. A., and Meng, C.-I., "Particle-in-Cell/Monte Carlo Simulation of Dusty Plasmas Near Spacecraft Surfaces."

Erlandson, R. E., Boies, M. T., Benson, R. C., Uy, O. M., and Grebowsky, J.,

"The MSX Ion Mass Spectrometer: Measurement of Contaminant and Ambient Ions."

Frank, L. A., Sigwarth, J. B., Williams, D. J., Roelof, E. C., Mitchell, D. G., Gold, R. E., Keath, E. P., Mauk, B. H., Meng, C.-I., Carpenter, D. L., Hultqvist, B. K., Lundin, R. N., Siscoe, G. L., Wolf, R. A., Gorney, D. J., Schulz, M., McComas, D. J., Funsten, H. O., Moore, K. R., Smith, B. W., Craven, J. D., Chiu, Y. T., Meier, R. R., and Seely, J. F., "Imagers for the

Magnetosphere, Aurora, and Plasmasphere."

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