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- A. Arrow, "Status and Concerns for Bank-to-Turn Control of Tactical Missiles," *J. Guid. Control Dyn.* **8**, 267-274 (1985).
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PRESENTATIONS

- A. Arrow, "Report for Workshop on Bank-to-Turn Controlled Terminal Homing Missiles," SAE Aerospace Control and Guidance Committee Meeting, Colorado Springs (Mar 6-8, 1985).
- H. D. Black, "A Small Argos Beacon," Naval Postgraduate School, Monterey (Feb 5, 1985).
- R. A. Blasic, "Cue Chart Stencil Making Using Decision Support Connection," ISSCO Mid-Atlantic Users Group, Rosslyn, Va. (Mar 26, 1985).
- R. B. Decker (APL) and L. Vlahos (Univ. Maryland), "Energetic Ion Acceleration at Collisionless Shocks," Second International School for Space Simulations, Kauai, Hawaii (Feb 14-15, 1985).
- G. L. Dugger, L. L. Perini, and D. Richards, "Comparison of Hybrid Geothermal OTEC Plant Alternatives," ASME Winter Meeting, New Orleans (Dec 9-14, 1984).
- R. A. Greenwald, "HF Radar Observations from Goose Bay, Labrador," Seminar, Univ. of Western Ontario (Mar 27, 1985).
- H. W. Ko and J. P. Skura, "Anomalous Propagation Effects on Bit-Error Rate in Data Transmission," 8th Joint Working Group on Tropospheric Propagation, Hanscom AFB, Mass. (Aug 28, 1984).
- H. A. Kues, "Microwaves and Subhuman Primates," Lecture, JHU School of Medicine, Div. of Comparative Medicine, Baltimore (Jan 11, 1985).
- D. M. Long (JHH) and H. W. Ko (APL), "Quantification of Brain Edema by Measurement of Brain Conductivity," 6th International Symp. on Brain Edema, Tokyo (Nov 7-10, 1984).
- A. T. Y. Lui (APL), C. C. Goodrich (Univ. Maryland), and A. Mankofsky and K. Papadopoulos (Science Applications In-

ternational Corp.), "Simulation of the Injection of a Cold Dense Ion Beam in a Hot Magnetized Plasma," International School for Space Simulations, Kauai, Hawaii (Feb 2-6, 1985).

- M. J. Mayr, S. A. Gearhart, and L. M. Howser, "Characterizing the Noise-Limited Operation of a Visible Scene-Matching Correlator," IRIS Specialty Group on Infrared Imaging, Eglin Air Force Base, Fla. (Mar 20-21, 1985).
- P. P. Pandolfini, P. J. Waltrup, E. R. Thomas, and G. A. Sullins, "Analysis of the Dual Combustion Ramjet," 21st JANNAF Combustion Meeting, Laurel, Md. (Oct 1-4, 1984).
- T. A. Potemra, "Field-Aligned (Birkeland) Currents," International School for Space Simulations, Kauai, Hawaii (Feb 3-6, 1985).
- A. J. Pue, "High Precision Pointing Control of Space Telescopes," System Theory Colloq., Univ. Maryland, College Park (Oct 12, 1984).
- J. C. Ray, "AMPTE/CCE Interactive Maneuver Results," Annual Rocky Mountain Guidance and Control Conf., Keystone, Colo. (Feb 2-6, 1985).
- M. E. Thomas (APL) and R. J. Nordstrom (Battelle Columbus Labs.), "Infrared Absorption by Water Vapor in the Troposphere," Technical Meeting on Optical Remote Sensing of the Atmosphere, Incline Village, Nev. (Jan 15-18, 1985).
- P. J. Waltrup, "Scramjet Integral Analysis Techniques," JANNAF Combustion Meeting, Laurel, Md. (Oct 1-4, 1984).
- L. B. Weckesser, "APL IR&D Effort on IR Window Testing," Ballistic Missile Defense System Division, Huntsville, Ala. (Dec 14, 1984).
- L. B. Weckesser, "NNK Sensor Window Evaluation Program," NNK Radome Program Review, Georgia Institute of Technology, Atlanta (Dec 12-13, 1984).
- D. M. Weintraub, "User Experience Panel—APL2," SHARE 64, Los Angeles (Feb 25, 1985).
- D. M. Weintraub, "APL2 User Experience at JHU/APL under the Virtual Machine/System Product," SHARE 64, Los Angeles (Feb 25, 1985).

The following papers were presented at the Chapman Conference on Solar Wind—Magnetospheric Coupling, Pasadena (Feb 12-15, 1985):

- M. E. Greenspan and C.-I. Meng, "Observations of Dawn-Dusk Gradients in Polar Rain Intensity";
- S. M. Krimigis, "Preliminary Results from the AMPTE Mission";
- A. T. Y. Lui, "Solar Wind Influence on Magnetotail Configuration and Dynamics";
- R. W. McEntire, A. T. Y. Lui, S. M. Krimigis, and E. P. Keath, "Energetic Heavy Ions in the Magnetosphere";
- C.-I. Meng, "Dynamic Variations of the Polar Cap";
- L. J. Zanetti, "Dependence of Birkeland Currents on the Interplanetary Magnetic Field."

The following papers were presented at the Fall Meeting of the American Geophysical Union, San Francisco (Dec 3-7, 1984):

- K. B. Baker, R. A. Greenwald, P. F. Bythrow, and T. A. Potemra (APL), C. L. Rino (Stanford Research Inst.), and F. J. Rich and D. A. Hardy (Air Force Geophysics Lab.), "Simultaneous HILAT and HF-Radar Observations of the Cleft";
- C. S. Bowyer (Univ. California, Berkeley), C.-I. Meng (APL), and S. Chakrabarti (Univ. California, Berkeley), "EUV Emissions for Monitoring Aurora";
- P. F. Bythrow (APL), W. J. Burke (Air Force Geophysics Lab.), T. A. Potemra, L. J. Zanetti, and A. T. Y. Lui (APL), and T. Iijima (Univ. Tokyo), "Evidence for Turbulent Reconnection and Plasma Flow in the Magnetotail during Periods of Northward IMF";
- M. Candidi (National Research Council, Italy) and C.-I. Meng (APL), "Conjugacy of the Polar Cusp Regions";
- A. F. Cheng and S. M. Krimigis (APL) and T. P. Armstrong (Univ. Kansas), "Near Equality of Ion Phase Space Densities at Earth, Jupiter, and Saturn";
- M. E. Greenspan and C.-I. Meng, "A New Look at Dawn-Dusk Gradients in the Polar Rain";
- A. T. Y. Lui, "Association between Energetic Proton Beams and Broadband Electrostatic Noise in the Earth's Magnetotail";
- C.-I. Meng (APL) and R. E. Huffman and D. A. Hardy (Air Force Geophysics Lab.), "VUV Aurora and Electron Precipitation Observed by HILAT";
- D. G. Mitchell and D. J. Williams, "Energetic Particle Angular Distributions in the Plasma Sheet—ISEE 1";
- D. G. Mitchell and D. J. Williams (APL) and T. E. Eastman (Univ. Iowa), "Energetic Particle Observations in the Low Latitude Boundary Layer";
- M. T. Paonessa and A. F. Cheng, "Radial Diffusion in Saturn's Inner Magnetosphere";
- T. A. Potemra, "Alfred J. Zmuda, 1921-1974";
- R. Reinhard (European Space Research and Technology Centre), E. C. Roelof (APL), and P. van Nes, T. R. Sanderson, and K.-P. Wenzel (European Space Research and Technology Centre), "Diffusion Coefficients of Low Energy Protons Upstream of Quasi-Parallel Interplanetary Shocks";
- F. J. Rich (Air Force Geophysics Lab.), P. F. Bythrow (APL), D. A. Hardy (Air Force Geophysics Lab.), and T. A. Potemra (APL), "Field-Aligned Currents, Precipitating Particles, and Visible Aurorae Observed with the DMSP/F7 Satellite";
- E. C. Roelof, "'Imaging' the Ring Current Using Energetic Neutral Atoms Measured by ISEE-1";
- T. R. Sanderson and P. van Nes (European Space Research and Technology Centre), E. C. Roelof (APL), and K.-P. Wenzel (European Space Research and Technology Centre), "Dynamics of Large Mag-

netic Discontinuities within an Energetic Storm Particle Event”;

- P. van Nes (European Space Research and Technology Centre), E. C. Roelof (APL), and R. Reinhard, T. R. Sanderson, and K.-P. Wenzel (European Space Research and Technology Centre), “A Major Shock-Associated Energetic Storm Particle Event Wherein the Shock Plays a Minor Role”;
- L. J. Zanetti, T. A. Potemra, P. F. Bythrow, and C.-I. Meng (APL) and R. E. Huffman (Air Force Geophysics Lab.), “The NBZ Current System and High Latitude Aurora.”

COLLOQUIA

- Mar 1, 1985—“Polymeric Metals—An Overview,” R. H. Baughman, Allied Chemical Corporation.
- Mar 8—“Broken Ergodicity,” R. G. Palmer, Duke University.
- Mar 15—“Star Wars: Boon or Bane?” R. L. Garwin, IBM Thomas J. Watson Research Center.
- Mar 22—“Gravitational Antennas and the Search for Gravitational Radiation,” J. Weber, University of Maryland.
- Mar 29—“Cellular Automata,” N. H. Packard, Institute for Advanced Study.
- Apr 5—“Theory of VLSI,” S. R. Kosaraju, The Johns Hopkins University.
- Apr 12—“Laser-Induced Chemistry for Microelectronics,” R. M. Osgood, Jr., Columbia University.
- Apr 19—“Tracking Birds by Satellite,” M. Fuller, Patuxent Wildlife Research Center.
- Apr 26—“Solitons in Optical Fibers and the Soliton Laser,” L. F. Mollenauer, AT&T Bell Laboratories.