

PUBLICATIONS

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

Babin SM, and Dockery GD

Comparison of LKB-based evaporation duct models with *in situ* atmospheric data, in *Proc. USNC/URSI National Radio Science Mtg.* (8 Jan 2001).

Baer GE, and Gemeny SE

Unattended satellite contacts, *Johns Hopkins APL Tech. Dig.* 22(2), 155–161 (2001).

Bevan MG, Lewis CL, and Levick N

Comparison of occupant sensor responses to the 6-year old hybrid III and similarly sized children, in *Proc. Soc. Automotive Engineers Mtg.*, Warrendale, PA (6 Mar 2001).

Bevan MG, Stott DD, and Schwartz PD

Investigation of alternative data compression/transmission methodologies, in *Proc. Soc. Automotive Engineers Mtg.*, Warrendale, PA (6 Mar 01).

Bokulic RS

Enabling technologies for high science return and low-power, low-mass communications on outer planet missions, in *Proc. Forum on Innovative Approaches to Outer Planetary Exploration 2001–2020*, Lunar and Planetary Institute, Contribution No. 1084 (21–22 Feb 2001).

Carbary JF, Morrison D, and Romick GJ

Hemispheric comparison of PMC altitudes, *Geophys. Res. Lett.* 28(4), 725–728 (15 Feb 2001).

Chacos AA, Stadter PA, and Devereux WS

Autonomous navigation and crosslink communication systems for space applications, *Johns Hopkins APL Tech. Dig.* 22(2), 135–143 (2001).

Charles HK Jr, Beck TJ (JH Med. Ctr.), Feldmesser HS, and Pisacane VL

Precision bone structural measurements by advanced multiple projection dual-energy x-ray absorptiometry, in *Proc. Bioastronautics Investigators Workshop*, Galveston, TX (17–19 Jan 2001).

Connelly MR, Grose RW, and Kozak WE

Modern plant services, *The Military Engineer* 93(610), 20–22 (2001).

Driesman AS, Ballard BW, Rodriquez DE, and Offenbacher SJ

STEREO observatory trade studies and resulting architecture, in *Proc. 2001 IEEE Aerospace Conf.*, Paper No. 131 (10–17 Mar 2001).

Edwards RT

Field programmable analog array architectures, *Johns Hopkins APL Tech. Dig.* 22(2), 101–103 (2001).

Elfouhaily TM, Thompson DR, Chapron B, and Vandemark D

Improved electromagnetic bias theory: Inclusion of hydrodynamic modulations, *J. Geophys. Oceans* 106(C3), 4655–4664 (2001).

Elfouhaily TM, Thompson DR, Freund DE, Vandemark D, and Chapron B

A new bistatic model for electromagnetic scattering from perfectly conducting random surfaces: Numerical evaluation and comparison with SPM, *Waves in Random Media* 11, 33–43 (2001).

Famiano M, Vandegriff J, Boyd RN, Kajino T, and Osmer P

Production of ^2H , ^3He , and ^7Li from interactions between jets and clouds, *Astrophys. J.* 547, L21–L24 (20 Jan 2001).

Fraeman ME

1394 serial bus, *Johns Hopkins APL Tech. Dig.* 22(2), 114–115 (2001).

Geyer O (Carmel Med. Ctr.), Man O (Carmel Med. Ctr.), Weintraub M (Sourasky Med. Ctr.), and Silver D

Acute effect of latanoprost on pulsatile ocular blood flow in normal eyes, *Am. J. Ophthalmol.* 131(2), 198–202 (2001).

Goldfinger AD

Spacecraft modeling and simulation standards, *Johns Hopkins APL Tech. Dig.* 22(2), 121–123 (2001).

Gray KM

Transferring APL technology to industry, *Johns Hopkins APL Tech. Dig.* 22(2), 162–167 (2001).

Guo Y

Autonomous solar navigation system, *Johns Hopkins APL Tech. Dig.* 22(2), 119–121 (2001).

Hall MR

Core Servlets and JavaServer Pages (German translation), Markt+Technik (2001).

Hall MR

Core Servlets and JavaServer Pages (Japanese translation), Softbank Publishing (2001).

Hall MR

Servlets and JSP (French translation), Campus Press (2001).

Hallikainen M, Askne J, Lemke P, Raney RK, Rebhan H, and Remy F

Science review panel report, in *CryoSat Phase A/B Assessment*, European Space Agency, ESTEC, Noordwijk, The Netherlands (15 Mar 2001).

Hanson JL, and Phillips OM (JHU)

Automated analysis of ocean surface directional wave spectra, *J. Atmos. Oceanic Technol.* 18, 277–293 (2001).

Jain S (Harvard Med. School), McCally RL, Connolly PJ (Indiana School of Med.), and Azar DT (Harvard Med. School)

Mitomycin C reduces corneal light scattering after excimer keratectomy, *Cornea* 20(1), 45–49 (2001).

Jorgensen AM, Henderson MG, Roelof EC, Reeves GD, and Spence HE

Charge exchange contribution to the decay of the ring current, measured by energetic neutral atoms (ENAs), *J. Geophys. Res.* 106(A2), 1931–1937 (1 Feb 2001).

Jurac S, Johnson RE, Richardson JD, and Paranicas CP

Satellite sputtering in Saturn's magnetosphere, *Planet. Space Sci.* 49(3–4), 319 (2001).

LaValle DB

Design and implementation of the NEAR command load generation process, in *Proc. IEEE Aerospace Conf.* (10–12 Mar 2001).

Lew AL, Le BQ, Schwartz PD, Fraeman ME, Conde RF, and Mosher LE

Microsatellites: An enabling technology for government and commercial aerospace applications, *Johns Hopkins APL Tech. Dig.* 22(2), 124–134 (2001).

Ling SX, Le BQ, and Lew AL

Evaluating and implementing commercial processes for producing reliable, cost-effective miniaturized space electronics, *Johns Hopkins APL Tech. Dig.* 22(2), 144–154 (2001).

Lu G, Richmond AD, Ruohoniemi JM, Greenwald RA, Hairston M, Rich FJ, and Evans DS

An investigation of the influence of data and model inputs on assimilative mapping of ionospheric electrodynamics, *J. Geophys. Res.* 106(A1), 417–433 (1 Jan 2001).

- Lyons LR, Ruohoniemi JM, and Lu G**
Substorm-associated changes in large-scale convection during the November 24, 1996, geospace environment modeling event, *J. Geophys. Res.* **106**(A1), 397–405 (1 Jan 2001).
- Mayfield JC**
Evaluating plan recognition systems: Three properties of a good explanation, *Artificial Intelligence Rev.* **14**, 351–376 (2000).
- Mayfield JC, McNamee JP, and Piatko CD**
The JHU/APL HAIRCUT system at TREC-8, in *Proc. Eighth Text Retrieval Conf. (TREC-8)*, NIST Special Publication 500–246, Gaithersburg, MD, pg. 445–452 (2000).
- McCally RL, and Barger CB**
Epithelial damage thresholds for multiple pulse exposures to 80 ns pulses of CO₂ laser radiation, *Health Phys.* **80**(1), 41–46 (2001).
- Mehoke DS, and Lankford K**
New developments in paraffin actuated heat switches, in *Proc. 12th Ann. Spacecraft Thermal Control Technology Workshop* (Mar 2001).
- Meng C-I, Liou K, and Newell PT**
Asymmetric sunlight effect on dayside/nightside auroral precipitation, *Phys. Chem. Earth* **26**(1–3), 43–47 (2001).
- Mitchell DG, Roelof EC, Brandt PC, Andrews GB, Ho G, Hamilton DC, Hsieh KC, Curtis CC, and Voss HD**
Imaging the Earth's ring current in energetic neutral atoms: Results from the IMAGE HENA instrument, and techniques for next-generation instrumentation, in *Geophysical Research Abstracts for the European Geophysical Society* (Mar 2001).
- Moorjani K**
In memoriam: Samuel N. Foner (1920–2000), *Johns Hopkins APL Tech. Dig.* **22**(2), 191–193 (2001).
- Newhall BK**
Covariance matrix filtering for adaptive beamforming with moving interference, in *Proc. Adaptive Sensor Array Processing Workshop*, MIT Lincoln Lab, Lexington, MA (14 Mar 2001).
- Ohtani S-I**
Substorm trigger processes in the magnetotail: Recent observations and outstanding issues, *Space Sci. Rev.* **95**, 347–359 (2001).
- Paranicas CP, Carlson RW, and Johnson RE**
Electron bombardment of Europa, *Geophys. Res. Lett.* **28**(4), 673 (15 Feb 2001).
- Penn JE**
K_a-band MMIC phased array components, *Johns Hopkins APL Tech. Dig.* **22**(2), 112–114 (2001).
- Prockter LM**
Icing Ganymede news and views article, *Nature* **410**, 25–26 (2001).
- Prockter LM**
Creation and destruction of lithosphere on Europa: From bands to folds, in *Proc. Lunar Planetary Science Conf. XXXII*, Houston, TX (CD-ROM) (Mar 2001).
- Prockter LM, Thomas PC, Joseph J, Robinson MS, Milne A, Bussey DBJ, Veverka J, Murchie SL, and Cheng AF**
Structural geology of Eros from NEAR Shoemaker imaging, in *Proc. Lunar Planetary Science Conf. XXXII*, Houston, TX (CD-ROM) (Mar 2001).
- Reed CLB, and Nimmo RE**
Balancing a business operations model for R&D services to both government and industry: Technology transfer for space applications, *Johns Hopkins APL Tech. Dig.* **22**(2), 176–183 (2001).
- Reinhart MJ, Jensen JR, Cloeren JM, DeBoy CC, Fielhauer KB, and Schulze RC**
The CONTOUR radio communications system, in *Proc. 2001 IEEE Aerospace Conf.*, Paper No. 236 (10–17 Mar 2001).
- Roth MW**
Three-dimensional visualization for large models, *SPIE Laser Radar Technology and Applications VI*, Vol. 4377, Bellingham, WA (2001).
- Rust DM**
Ellerman bombs, in *Encyclopedia of Astronomy and Astrophysics*, P Murdin (ed.-in-chief), Institute of Physics Publishing, London (2001).
- Rust DM**
Solar prominence observations, in *Encyclopedia of Astronomy and Astrophysics*, P Murdin (ed.-in-chief), Institute of Physics Publishing, London (2001).
- Schwartz PD, Hepp AF, Le BQ, Lew AL, Ling SX, Piszczor MF Jr, Stott DD, Suter JJ, and Williams BD**
Integrated power source, *Johns Hopkins APL Tech. Dig.* **22**(2), 106–109 (2001).
- Slinker SP, Fedder JA, Ruohoniemi JM, and Lyon JG**
Global MHD simulation of the magnetosphere for November 24, 1996, *J. Geophys. Res.* **106**(A1), 361–380 (1 Jan 2001).
- Smart JH**
Worldwide ocean optics database (WOOD), *Oceanography* **13**(3), 70–74 (2001).
- Stadter PA**
Navigation, communications, and control in distributed spacecraft systems, in *Proc. 7th AIAA Workshop on Reducing the Cost of Space Operations*, Laurel, MD (26–27 Apr 2001).
- Stadter PA, Chacos AA, Heins RJ, Moore GT, Olsen EA, Asher MS, and Bristow JO (NASA/GSFC)**
Confluence of navigation, communications, and control in distributed spacecraft systems, in *Proc. 2001 IEEE Aerospace Conf.*, Paper No. 2.0904 (CD-ROM) (2001).
- Stadter PA, Kusterer TL, DeBolt RJ, Clark PJ, Chacos AA, Bristow JO, and Leitner JA**
Navigation validation using the distributed spacecraft modeling and simulation testbed, in *Proc. 2001 IEEE Aerospace Conf.*, Paper No. 2.0906 (CD-ROM) (2001).
- Strickland DJ, Bishop J, Evans JS, Majeed T, Cox RJ, Morrison D, Romick GJ, Carbary JF, Paxton LJ, and Meng C-I**
Midcourse Space Experiment/ultraviolet and visible imaging and spectrographic imaging limb observations of combined proton/hydrogen/electron aurora, *J. Geophys. Res.* **106**(A1), 65–75 (1 Jan 2001).
- Strohbehn K, Martin MN, and Jaskulek SE**
Micro digital solar attitude detector, *Johns Hopkins APL Tech. Dig.* **22**(2), 104–106 (2001).
- Suter JJ, Crawford LJ, Montgomery BG, and Swann WE**
Syntonic LLC: APL technology makes its commercial debut, *Johns Hopkins APL Tech. Dig.* **22**(2), 168–175 (2001).
- Taguchi S, Kiyohara M, Mukai T, Nose M, and Saito Y**
Convection enhancements in the low-latitude lobe for substorm onset, *J. Geophys. Res.* **106**, 3943–3952 (2001).
- Tuckwell GW, and Prockter LM**
Formation of chaos terrain on Europa: Constraints on the development of brittle failure from numerical modes, in *Proc. Lunar Planetary Science Conf. XXXII*, Houston, TX (CD-ROM) (Mar 2001).
- Wallis RE, and Cheng S**
Phased-array antenna system for the MESSENGER deep space mission, in *Proc. 2001 IEEE Aerospace Conf.*, Paper No. 089 (10–17 Mar 2001).
- Wilkison SL, Robinson MS, Thomas PC, Veverka J, McCoy TJ, Murchie SL, Prockter LM, and Yeomans DK**
The porosity of Eros and implications for its internal structure, in *Proc. Lunar Planetary Science Conf. XXXII*, Houston, TX (CD-ROM) (Mar 2001).

- Wiley CE, Bokulic RS, Skullney WE, and Schulze RC**
K_a-band hybrid inflatable dish antenna, *Johns Hopkins APL Tech. Dig.* 22(2), 110–112 (2001).
- Wiley CE, Huettl B, Down D, and Hill SW**
Miniature mechanisms tool kit for micro spacecraft, *Johns Hopkins APL Tech. Dig.* 22(2), 115–119 (2001).
- Winstead NS, Verlinde J, Nicosia D, Maloit PF, Miles N, Arthur ST, Jaskiewicz F, and Davis JR**
High-resolution radar observations of Mammatus, *Mon. Wea. Rev.* 129, 159–166 (2001).
- Yoon PH, and Lui ATY**
On the drift-sausage mode in the one-dimensional current sheet, *J. Geophys. Res.* 106(A2), 1939–1947 (1 Feb 2001).
- Zimm AD**
A causal model of warfare, Chap. 3, in *Maneuver Warfare Science 2001*, G Horne and M Leonardi (eds.), Marine Corps Combat Develop. Command Publisher, Quantico, VA, pp. 83–105 (2001).

PRESENTATIONS

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

- Barrett GR**
Decentralized control of discrete-event systems, University of Pennsylvania (23 Mar 2001).
- Bevan MG, Lewis CL, and Levick N**
Comparison of occupant sensor responses to the 6-year-old hybrid III and similarly sized children, *Society of Automotive Engineers*, Warrendale, PA (6 Mar 2001).
- Bevan MG, Stott DD, and Schwartz PD**
Investigation of alternative data compression/transmission methodologies, *Society of Automotive Engineers*, Warrendale, PA (6 Mar 2001).
- Bitman WR**
Web-based workflow, *Conf. Assoc. of Information and Image Management*, New York, (30 Apr–4 May 2001).
- Bokulic RS**
Enabling technologies for high science return and low-power, low-mass communications on outer planet missions, *Forum on Innovative Approaches to Outer Planetary Exploration 2001–2020*, Lunar and Planetary Institute, Houston, TX (21–22 Feb 2001).
- Charles HK Jr, Beck TJ (Johns Hopkins Med. Ctr.), Feldmesser HS, and Pisacane VL**
Precision bone structural measurements by advanced multiple projection dual-energy x-ray absorptiometry, *Bioastronautics Investigators Workshop*, Galveston, TX (17–19 Jan 2001).
- Coolahan JE**
Distributed simulation of integrated human function, *Bioastronautics Investigators Workshop*, Galveston, TX (17–19 Jan 01).
- Cornish T**
Miniature time-of-flight mass spectrometers using flexible circuit board reflectors, *Workshop on Mass Spectrometry in Harsh Environments*, St. Petersburg, FL (19 Mar 2001).
- Erlandson RE, Kumar CK, Swaminathan PK, Terry DH, and Kolodner MA**
High-speed spectrograph observations of intercept phenomenology, *MSS Specialty Group on Missile Defense Sensors, Environment, and Algorithms Conf.* (30 Jan–1 Feb 2001).
- Haley DR, Strikwerda TE, Ray JC, and O'Shaughnessy DJ**
NEAR Shoemaker—Major anomaly survival, delayed rendezvous, and mission success, *AAS Guidance & Control Conf.*, Breckenridge, CO (4 Feb 2001).
- Hall MR**
Developing solutions using servlets and Javasever pages, *Int. Conf. for Java Development*, New York (Mar 2001).
- Henshaw RM, Darlington EH, Hawkins III SE, Heffernan KJ, Izenberg NR, Strohbehn K, and Thompson P**
A multifunctional, multispectral, outer planetary imager, *Program Forum on Innovative Approaches to Outer Planetary Exploration*, Lunar and Planetary Institute, Houston, TX (21 Feb 2001).
- Ho GC, Roelof EC, Gold RE, Mason GM, Dwyer JR, and Mazur JE**
Composition and onset study for ³He-enhanced impulsive solar energetic particle events, *SOHO-ACE Workshop*, Bern, Switzerland (21 Mar 2001).
- Lario D, MacLennan CG, Roelof EC, Hawkins III SE, and Ho GC**
High-latitude ULYSSES observations of the H/He intensity ratio under solar minimum and solar maximum conditions, *SOHO-ACE Workshop*, Bern, Switzerland (21 Mar 2001).
- Lew AL, and Charles Jr HK**
Electronic miniaturization for space, *Poster Session on Vehicle Technology*, JHU/APL, Laurel, MD (23 Jan 2001).
- McAdams JV**
NEAR Shoemaker mission summary, *Aerospace Engineering Seminar*, Pennsylvania State University, State College (22 Feb 2001).
- McNutt Jr RL**
A realistic interstellar explorer, *Spring 2001 Engineering Colloquium*, NASA/GSFC, Greenbelt, MD (26 Feb 2001).
- McNutt Jr RL, Andrews GB, Bokulic RS, Boone BG, Gold RE, and Haley DR**
A realistic interstellar explorer, NASA Institute for Advanced Concepts (NIAC) Site Visit, JHU/APL, Laurel, MD (25 Jan 2001).
- Murphy KE**
APL Nav FMS, *DEA Marijuana Eradication Presentation*, JHU/APL, Laurel, MD (8 Feb 2001).
- Murphy KE**
Rapid terrain visualization topographic lidar ACTD, *DEA Marijuana Eradication Presentation*, JHU/APL, Laurel, MD (8 Feb 2001).
- Newhall BK**
Covariance matrix filtering for adaptive beamforming with moving interference, *Adaptive Sensor Array Processing Workshop*, MIT Lincoln Laboratory, Lexington, MA (14 Mar 2001).
- Ohtani S-I**
How well does the near-Earth reconnection model explain tail sub-storm dynamics? *Substorm Workshop at the Communication Research Laboratory*, Tokyo (Feb 2001).
- Raney RK**
Delay-Doppler radar altimeter, *Poster, Senior Leadership Team Review*, JHU/APL, Laurel, MD (23 Jan 2001).
- Raney RK**
Flight results from the D2P airborne radar altimeter over the ice sheets of Greenland, *CryoSat Science Advisory Group*, ESA/ESTEC, Noordwijk, The Netherlands (31 Jan 2001).
- Raney RK, and DL Porter**
Doppler-processing radar altimeters, the D2P airborne altimeter, and reincarnation as an ESSP Project, *Pre-ESSP Working Team Reviews*, JHU/APL, Laurel, MD (21–26 Feb 2001).
- Raney RK, Porter DL, Gasparovic RF, and Jensen JR**
Doppler-processing radar altimeters, the D2P incubator project, and their ramifications, *Brief to NASA Code Y Team*, JHU/APL, Laurel, MD (23 Feb 2001).
- Resch CL, and Costello CJ**
Comprehensive class-dependent feature distributions for class B threats, *2001 Mtg. of the MSS Specialty Group on Missile Defense Sensors, Environments, and Algorithms (MD-SEA)*, Monterey, CA (1 Feb 2001).

Reynolds EL

Use of hibernation modes for deep space missions as a method to lower mission operations costs, *NASA Outer Planets Workshop*, Houston, TX (21 Feb 2001).

Rottier JR

Environmental assessment workshop, *Air Defense Tactics Forum*, Norfolk Naval Base, Norfolk, VA (12 Apr 2001).

Rust DM

Solar astronomy from 25 miles above Antarctica, *National Capitol Astronomers Mtg.*, Bethesda, MD (3 Feb 2001).

Rust DM

The Sun in 3-D, *Achievement Rewards for College Scientists (ARCS) Annual Mtg.*, Washington, DC (25 Jan 2001).

Stadter PA

Navigation, communications, and control in distributed spacecraft systems, *7th AIAA Workshop on Reducing the Cost of Space Operations*, Laurel, MD (26–27 Apr 2001).

Stadter PA

Realizing the promise of distributed spacecraft systems, *Goddard Memorial Symp.*, Greenbelt, MD (28 Mar 2001). (Invited)

Stadter PA

Challenges in communications for distributed spacecraft systems, *NASA Earth Science Enterprise Technology Planning Workshop*, Arlington, VA (23 Jan 2001).

Thompson DR

Mapping mesoscale and submesoscale wind fields using synthetic aperture radar (SAR), *ONR CBLAST Workshop*, Warrenton, VA (3 Jan 2001).

Thompson DR

Mapping mesoscale and submesoscale wind fields using synthetic aperture radar (SAR), NASA Wallops Flight Facility, VA (22 Mar 2001). (Invited)

Winstead NS

Observing mesoscale and microscale atmospheric phenomena using synthetic aperture radar (SAR), Institute for Terrestrial and Planetary Atmospheres, SUNY, Stony Brook, NY (2001).

The following papers were presented at the *National Radio Science Mtg.*, Boulder, CO (8–11 Jan 2001):

Awadallah RS, and Kuttler JR

Parabolic equation modeling of electromagnetic wave propagation over 2-D terrain.

Awadallah RS, and Ku HC

Scattering from ocean breaking waves via the multigrid and the extended Kirchhoff methods.

Babin SM, and Dockery GD

Comparison of LKB-based evaporation duct models with *in situ* atmospheric data.

Elfouhaily TM, Thompson DR, Freund DE, Vandemark DC (NASA), Chapron B (Institut Francais de Recherche pour l'Exploitation de la Mer)

A new bistatic model for electromagnetic scattering from perfectly conducting random surfaces: Numerical evaluation and comparison with SPM.

Freund DE, and Bjerkaas AW

Dependence of internal electromagnetic fields on the electromagnetic properties of exterior walls.

Ku HC, and Awadallah R

Prediction of three-dimensional ocean surface scattering by the multigrid method in Helmholtz integral form.

The following papers were presented at the *2001 IEEE Aerospace Conf.*, Big Sky, MT (10–17 Mar 2001):

Driesman AS, Ballard BW, Rodriguez DE, and Offenbacher SJ

STEREO observatory trade studies and resulting architecture.

LaValle DB

Design and implementation of the NEAR command load generation process.

Reinhart MJ, Jensen JR, Cloeren JM, DeBoy CC, Fielhauer KB, and Schulze RC

The CONTOUR radio communications system.

Stadter PA, Chacos AA, Heins RJ, Moore GT, Olsen EA, Asher MS, and Bristow JO

Confluence of navigation, communications, and control in distributed spacecraft systems.

Stadter PA, Kusterer TL, DeBolt RJ, Clark PJ, Chacos AA, Bristow JO, and Leitner JA

Navigation validation using the distributed spacecraft modeling and simulation testbed.

Wallis RE, and Cheng S

Phased-array antenna system for the MESSENGER Deep Space Mission.

The following papers were presented at the *Lunar Planetary Science Conf. XXXII*, Houston, TX (15 Mar 2001).

Prockter LM

Creation and destruction of lithosphere on Europa: From bands to folds. (Invited)

Prockter LM, Thomas PC, Joseph J, Robinson MS, Milne A, Bussey DBJ, Veverka J, Muchie SL, and Cheng AF

Structural geology of Eros from NEAR Shoemaker imaging. (Invited)

Tuckwell GW, and Prockter LM

Formation of chaos terrain on Europa: Constraints on the development of brittle failure from numerical modes. (Invited)

Wilkison SL, Robinson MS, Thomas PC, Veverka J, McCoy TJ, Murchie SL, Prockter LM, and Yeomans DK

The porosity of Eros and implications for its internal structure. (Invited)

The following papers were presented at the *35th Annual Conf. on Information Sciences and Systems*, JHU, Baltimore, MD (21–23 Mar 2001):

Chin DC, and Biondo AC

A non-linear image interpolator for a time-varying simulation system.

Hill SD, and Whitney II JE (Morgan State Univ.)

Constrained optimization over discrete sets via SPSA.

Hill SD, Gerencser L, and Vago Z (Hungarian Acad. of Sciences)

Discrete optimization via SPSA.

Maryak JL, and Chin DC

Global random optimization by simultaneous perturbation stochastic approximation.

Spall JC

The information matrix in systems and control: Computation and some application.

Stark DR, and Spall JC

Computable bounds on the rate of convergence in evolutionary computation.

The following papers were presented at the *European Geophysical Society, EGS XXVI, General Assembly*, Nice, France (26–30 Mar 2001):

Brandt PC, Mitchell DG, Barabash S, and Roelof EC

Global views of the ring current. (Invited)

McNutt Jr RL

Escape of Pluto's atmosphere: Modeling and observations.

McNutt Jr RL

MESSENGER: Science payload and mission status.

McNutt Jr RL

Derivation of first-order Chapman-Engskog correction to moments of the Boltzmann collision operator. (Invited)

Meng C-I, and Liou K

On the onset-associated phenomena as constraints for substorm mode. (Invited)

Meng C-I, McMorrow DJ, Hume EE, and Lui ATY

The university partnering for operational support. (Invited)

COLLOQUIA

The following topics were recently presented at the weekly APL Colloquium:

4 May 2001

Simulation and Training, D McBride, University of Central Florida

11 May 2001

Green Chemistry, T Collins, Carnegie-Mellon University

18 May 2001

Data Fusion and Target ID: Dempster-Shafer and Probability Theories Holy War, JS Peri, APL