PUBLICATIONS

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

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An enhanced multizone model and its application to optimum placement of CBW sensors, in *ASHRAE Transactions 2002 Ann. Mtg.,* **108**(2), Honolulu, HI (2002).

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O'Shaughnessy DJ, and Vaughan RM
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Sunday DM, Ballard BL, Kagel AA, Saunders R, and Schlegel MO
A VPG architecture to support FCS T&E, in *ITEA Workshop: New Applications for a Changing World,* Paper #2, Las Cruces, NM (Mar 2003).

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PRESENTATIONS

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Brokloff NA
Sensor integration and Kalman filtering, *ADCPs In Action*, San Diego, CA (10–11 Mar 2003).

Connelly MR, and Wang CH
Got Change?, *RUG 2003*, San Francisco, CA (6–10 Apr 2003).

Coolahan JE, Feldman AB, and Murphy SP
Integrating cardiac, cardiovascular, and other physiological simulations for human space flight, *NASA BioAstronaut. Investigators' Workshop*, Galveston, TX (13–15 Jan 2003).

Csutak A, Silver DM, Tozser J, Hassan Z, and Berta A
Plasminogen activator inhibitors in tears after excimer laser photorefractive keratectomy, *First SERI-ARVO Mtg. on Res. in Vision and Ophthalmology*, Singapore (7–9 Feb 2003).

Eirich PL
Critical elements for distributed product description data, *2003 Spring Simulation Interoperability Workshop*, Kissimmee, FL (30 Mar–4 Apr 2003).

Hammons AR Jr
On the algebraic design of space-time codes, *Lucent Distinguished Lecture Series on Communications and Networks at the University of Michigan*, Ann Arbor (13 Feb 2003).

Hutchison DW, and Spall JC
Stopping stochastic approximation using idealized processes, *2003 Conf. on Information Science and Systems*, Baltimore, MD (12–14 Mar 2003).

Kolodner MA, and Murphy PK
Comparison of detection methodologies and results from the radiant ARGON hyperspectral data collection, *Military Sensing Symp. (MSS) Mtg. on Camouflage, Concealment, and Deception (CC&D)*, Tucson, AZ (24–28 Feb 2003).

Kujawa WF, and Kroshl WM
Trade studies for UUV systems, *Future Unmanned Vehicles: Opportunities and Initiatives*, Washington, DC (31 Mar–1 Apr 2003).

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Energetic particles in the solar maximum and solar minimum heliosphere, *University of Barcelona, Dept. of Astronomy and Meteorology Seminar*, Barcelona, Spain (13 Feb 2003).

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Problems and difficulties when combining coronal mass ejection (CME) and solar energetic particle (SEP) models, *Multidisciplinary Res. Program of the University Res. Initiative (MURI) Workshop on Solar Energetic Particles*, University of Arizona, Tucson (17 Mar 2003).

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Low-energy particle response to CMEs at high heliographic latitudes, *2nd Elmau Coronal Mass Ejection (CME) Workshop*, Bavaria, Germany (6–12 Feb 2003).

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Bio-surveillance: Utilizing ESSENCE II in emergency response, *Nat. Disaster Medical System Conf.*, Reno, NV (8–12 Mar 2003).

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Corneal injury thresholds for exposures to 1.54 μm radiation, *BiOS 2003 Biomedical Optics*, San Jose, CA (25–31 Jan 2003).

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Corneal injury thresholds for exposures to 1.54 μm radiation, *Int. Laser Safety Conf.*, Jacksonville, FL (10–13 Mar 2003).

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The cusp and the double cusp: Observations, modeling and implications for antiparallel merging, *Yosemite Conf. Workshop, Dayside Magnetopause and Cusp*, Yosemite National Park, WY (9–13 Feb 2003).

Ohtani S-I
Outstanding issues of storm-time current systems, *3rd Climate and Weather of the Sun-Earth System (CAWSES) Workshop*, Fukuoka, Japan (10–11 Mar 2003).

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Corporate communications strategy—Logos and trademarks, *RIPE 25 (Res. Inst. Publishing Executives)*, Port Jefferson, NY (14–18 Oct 2002).

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From space into the abyss, *Keynote Address, Ann. Symp. on Res. and Scholarship*, Slippery Rock University, Slippery Rock, PA (28 Mar 2003).

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Monte Carlo–based computation of the Fisher information matrix in nonstandard problems, *2003 Conf. on Information Science and Systems*, Baltimore, MD (12–14 Mar 2003).

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Applications and systems issues for interspacecraft communications technology, *NASA New Millennium Program ST-9 Technol. Planning Workshop*, Washington, DC (5–6 Feb 2003).

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A VPG architecture to support FCS T&E, *ITEA Workshop: New Applications for a Changing World*, Las Cruces, NM (9–12 Dec 2002).

Taylor JC, Michaelis CH, Tennyson PD, Dogra VK, O'Marr GL, and Erlandson RE
Modeling of remotely sensed hypervelocity impacts during missile fight intercepts, *Missile Sensing Symp. Specialty Group on Missile Defense Sensors, Environments and Algorithms*, Monterey, CA (21–23 Jan 2003).

van der Ha J, Rogers GD, Dellinger WF, and Stratton J
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Wing S, Newell PT, and Meng C-I
Double cusp: Predictions and confirmations, *Yosemite Conf. Workshop, Dayside Magnetopause and Cusp*, Yosemite National Park, WY (9–13 Feb 2003).

Zhu X
Correlation coefficients between temperature and ozone in the upper stratosphere and the mesosphere derived from SABER measurements, *TIMED Workshop*, JHU/APL, Laurel, MD (11–13 Feb 2003).

Zhu X
Numerical modeling and simulation of atmospheric tides, *Tides Workshop*, Honolulu, HI (4–7 Mar 2003).

Zhu X
Preliminary comparisons of migrating tides between SABER measurements and the JHU/APL tidal model. I: Derivation of zonal mean and tidal fields from the measurements, *TIMED Workshop*, JHU/APL, Laurel, MD (11–13 Feb 2003).

The following papers were presented at the *IEEE Aerospace Conf.*, Big Sky, MT (8–15 Mar 2003).

Jensen JR, Fielhauer KB, Reinhart MJ, and Srinivasan RK
In-flight CONTOUR radiometric performance.

LaVallee DB
TIMED lights out operations.

Martin MN
Micro digital attitude detector chip.

Stadter PA, Barrett GR, Watson DP, Esposito TC, and Bristow JO
Autonomous command and control for distributed spacecraft system operations.

The following papers were presented at the *34th Lunar and Planetary Science Conf.*, Houston, TX (17–21 Mar 2003):

Bulmer MH, Glaze L, Shockey KM, Barnouin-Jha OS, and Murphy W
Insights into the emplacement of rock avalanches on Mars.

Bussey DBJ, Lucey PG, Robinson MS, Spudis PD, Edwards KD, and Steutel D
Permanent shadow in simple craters near the lunar poles.

Cheng AF, and Barnouin-Jha OS
Highest resolution topography of 433 Eros and implications for MUSES-C.

Hawke BR, Blewett DT, Bussey DBJ, Giguere TA, Lawrence DJ, Lucey PG, Smith GA, Spudis PD, and Taylor GJ
Geochemical anomalies in the lunar highlands.

Hawke BR, Lawrence DJ, Gillis JJ, Blewett DT, Lucey PG, Peterson CA, Smith GA, Spudis PD, and Taylor GJ
Spectral anomalies in the imbrium region of the moon.

Izenberg NR, Murchie SL, Bell JF III, McFadden LA, Wellnitz DD, Clark BE, and Gaffey MJ
Eros spectral properties and geologic processes from combined NEAR NIS and MSI data sets.

Pappalardo RT, Nimmo F, Giese B, Bader CE, DeRemer LC, and Prockter LM
Furrow topography and the elastic thickness of Ganymede's dark terrain lithosphere.

Prockter LM, and Pappalardo RT
Comparison of ridges on Triton and Euro.

Prockter LM, Robinson MS, Murchie SL, Bussey DBJ, Choo T, Watters TR, and the MESSENGER Geology Team
The MESSENGER Mercury Dual Imaging System (MDIS): Imaging strategy at Mercury.

Spudis PD, and Bussey DBJ
South pole-Aitken basin: Geology, basin floor, and unit compositions.

Zellner NEB, Spudis PD, Delano JW, Whittet DCB, and Swindle TD
Geochemistry and impact history at the Apollo 16 landing site.

The following papers were presented at the *National Defense Industrial Assoc. (NDIA) Undersea Warfare Technol. Conf.*, Monterey, CA (18–20 Mar 2003).

Brandt A, and Rennie SE
Expert system for predicting mine burial.

Kujawa WF, and Kroshl WM
Trade studies for UUV systems.

Root SL
Development and testing of a very low-frequency volumetric acoustic array.

COLLOQUIA

The following topics were presented at the weekly APL Colloquium:

10 January 2003
Statistical Mechanics of Money, Income and Wealth, V Yakovenko, Univ. of Maryland

17 January 2003
West Africa: Its Strategic Importance, G Ayittey, American Univ.

24 January 2003
Design and Counterfeit Deterrence, T Ferguson, U.S. Dept. of the Treasury Bureau of Engraving and Printing

31 January 2003
Afghanistan and the Future of Warfare: Implications for Army and Defense Policy, S Biddle, U.S. Army War College

7 February 2003
High Energy Neutrino Astronomy at the South Pole, T Miller, APL

21 February 2003
Global Connectivity: Leveraging Remote Access Technology, A King, Ventana Medical Systems, Inc.

25 February 2003
Preemptive Self-Defense and the U.N. Charter, R Wedgwood, JHU School of Advanced Int. Studies

7 March 2003
DoD Role in Homeland Security, P Verga, Dept. of Defense, Homeland Security

21 March 2003
Two Grand Challenges of Climate Research, G Stokes, Univ. of Maryland

28 March 2003
Keeping Your Brain Young, G McKhann and M Albert, JHU-SOM