PUBLICATIONS

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

Advances in deep space telecommunications technology at the Applied Physics Laboratory, in Proc. Fourth IAA Int. Conf. on Low-Cost Planetary Missions, Laurel, MD (2–5 May 2000).

Charles HK Jr, Beck TJ (JHU School of Med.), Feldmesser HK, Magee TC, Spisz TS, and Piscacane VL

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Kanungo T (UMCP), Mount D (UMCP), Netanyahu N (Bar Ilan Univ.), Silverman R (UMBC), Wu A (AU), and Piasko C  
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Solar energetic particle events in the rising phase of solar cycle 23: Observations at 1 and 5 AU, Space and Cosmic Ray Physics Seminar, University of Maryland, College Park (1 May 2000).

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Mechanical hyperalgesia following an L5 spinal nerve lesion in the rat is not dependent on input from injured nerve fibers, AANS 2000, San Francisco, CA (Apr 2000).

Lui ATY, and Cheng CZ  
Effect of field line stretching in field line resonance, SuperDARN Mtg., Beechworth, Australia (23–26 May 2000).

PRESENTATIONS  

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

Charles HK Jr, Beck TJ (JHU School of Med.), Feldmesser HK, Magee TC, Spisz TS, and Piscanec VL  
Precision bone and muscle loss measurements by advanced multiple projection DEXA techniques for space flight applications, 13th IAA Humans in Space Symp., Santorini, Greece (20–26 May 2000).

Chin DC, and Biondo AC  

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An efficient optimization technique for image restoration and image-related modeling, presented at the Center for Imaging Sciences at The Johns Hopkins University (24 Apr 2000).

Cole TD, Cheng AF, Reiter RA, Smith DE, and Zuber M  
Lui ATY, Liou K, Newell PT, Meng C-I, and Mukai T
On the optical signatures of fast plasma flows in the magnetotail, Int. Conf. on Substorms-5, St. Petersburg, Russia (16–20 May 2000).

McCally RL, and Matsuawaza M (JHU)

Mechtel DM (US Naval Acad.), Charles KH Jr, and Franco-martins AS

Meyer RA
The peripheral neural mechanisms of heat pain sensation, 3rd Int. Workshop on Semiconductor and Solid State Lasers in Medicine, St. Petersburg, Russia (26–27 May 2000).

Moore RC

Nelson CV, and Smith DG
Handheld time-domain electromagnetic identification (TEMID) sensor system, EUROEM 2000, Edinburgh, Scotland (1 Jun 2000).

Norton JR
The versatile uses of quartz in instrumentation, 46th Int. Instrumentation Symp., Bellevue, WA (3 May 2000). (Tutorial)

Ohtani S-I
Ionospheric roles in the formation of daytime field-aligned current systems, Western Pacific Geophysics Mtg., Tokyo, Japan (25–30 Jun 2000). (Invited)

Ohtani S-I, Nosé M, Lui ATY, Liou K, Rostoker G, Nakamura M, and Singer H

Ohtani S-I, Nosé M, Lui ATY, Rostoker G, Nakamura M, and Singer H

Persons DF, Mosher LE, and Hartka TJ

Peter JJ
Experience using group systems decision support system software, presented to Towson Univ. Decision Support Systems Group, Towson, MD (25 Apr 2000).

Poland DD, and Fogel SA

Raney RK
Initial results from the D2P airborne flight trials, briefing to the CryoSat Science Advisory Group, ESA ESTEC, Noordwijk, The Netherlands (15 May 2000).

Raney RK, Porter DL, Gasparovic RF, and Fountain GH
WITTEX: A constellation of three small satellite radar altimeters, briefing to the Oceanographer of the Navy (23 Jun 2000).

Romensko BM, Charles HK Jr, Cristion JA, and Siu BK (Simpex Technol., Inc.)

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Sadegh P (Tech. Univ. of Denmark), and Spall JC

Sikora TD, O’Marr EO, and Gasparovic RF
Anomalous cloud lines off the East Coast of the United States, 10th Conf. on Interaction of the Sea and Atmosphere, Fort Lauderdale, FL (29 May–2 Jun 2000).

Smith DG, and Nelson CV
Algorithms for identifying landmines using the time-domain electromagnetic identification (TEMID) sensor system, EUROEM 2000, Edinburgh, Scotland (2 Jun 2000).

Spall JC, Hill SD, and Stark DR

Stadler PA, Bristow JO, and Leitner JA
Expanding Earth and space science through distributed spacecraft systems, Living with a Star Workshop, NASA/Goddard Space Flight Center, Greenbelt, MD (10–12 May 2000). (Poster)

Swaminathan PK
APEX North Star: High speed plasma jet optical data interpretation, presented to the Institute for Dynamics of Geosphere, RAS, Moscow, Russia (3 May 2000).

Takahashi K, Toth BA, and Olson JV

White ME
Missile propulsion, briefing to NSA, JHU/APL, Laurel, MD (18 Apr 2000)

White ME, D’Alessio SM, and Fuller ST (NAV AIR)
High-speed, air-breathing propulsion technology development—Dual combustor ramjet, presented at The Beckman Center, Irvine, CA (15 Jun 2000).

Wienhold PD, Lennon AM, Roberts JC, Rooney M, Kercher AK (JHU-CNDE), Nagle DC (JHU-CNDE), and Sorathia U (NSWC-CD)

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Do the observations confirm the high-speed flow braking model for substorms?, Int. Conf. on Substorms-5, St. Petersburg, Russia (16–20 May 2000).

The following papers were presented at the 25th European Geophysical Society (EGS) Mtg., Nice, France (25–29 Apr 2000):

Brinckerhoff WB, Cornish TJ, McEntire RW, Cheng AF, Benson RC, and Krimgis SM
Miniature laser time-of-flight mass spectrometers.

Lui ATY
Physics at the interface of tail and outer magnetosphere.

Lui ATY, and Meng C-I
Transition of research result to operational environment: Judging the practical need of space weather products.
The following papers were presented at the 4th IAA Int. Conf. on Low-Cost Planetary Missions, Laurel, MD (2–5 May 2000):

Bokulic RS
Advances in deep space telecommunications technology at the Applied Physics Laboratory.

Brinckerhoff WB, Cornish TJ, McIntire RW, Cheng AF, and Benson RC
Miniature time-of-flight mass spectrometers for in situ composition studies.

Cole TD, Cheng AF, Guo Y, Zuber MT, and Smith DE
Flight characterization of the NEAR laser rangefinder.

Fort D
The CONTOUR remote imager and spectograph.

Holdridge ME
Applying successful NEAR mission operations approaches and refining for CONTOUR mission operations.

Mueller J, Guo Y, von Mehlem U, and Cheng A
Aladdin mission concept.

The following papers were presented at the 2000 Spring Mtg. of the American Geophysical Union, Washington, DC (30 May–3 Jun 2000):

MESSENGER: A new look at the magnetosphere and atmosphere of Mercury, P51A-05.

Bernasconi PN, Rust DM, Eaton HA, and Murphy GA
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Boynton WV, Solomon SC, McClintock W, McNutt RL Jr, Murchie SL, Robinson MS, and Trombka JI
Geochronological investigations of the MESSENGER mission to Mercury, P51A-07.

Carberry JF, Morrison D, and Romick GJ
The spectra of polar mesospheric clouds, SA12B-10.

Chapman CR, Thomas PC, Merline W, Joseph J, Izenberg NR, Veverka J, Robinson MS, Malin M, and Bell JF III
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Cheng AF, and Beisser KB
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Hamilton DC, Gloeckler G, Krimigis SM, Mitchell DG, and Dandouras J
Bursts of energetic magnetospheric ions observed by Cassini in the dawn magnetosheath.

Hawkins SE III, Roelof EC, Gold RE, Lanzerotti LJ, Ho GC, and Lario D
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Magnetopause motion driven by interplanetary magnetic field variations.

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Multi-model interpolation of range-varying acoustic propagation.

Hill SD, and Spall JC
Inequality-based reliability estimates for complex systems.

Maryak JL, and Chin DC
Stochastic approximation for global random optimization.

Spall JC, Hill SD, and Stark DR
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Mapping high-resolution wind fields using synthetic aperture radar 21(1), 58–67. Thompson DR, and Beal RC
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Rapid-repeat SAR imaging of the ocean surface: Are daily observations possible 21(1), 162–169. Holt B, and Hilland J
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SAR signatures of the marine atmospheric boundary layer: Implications for numerical forecasting 21(1), 27–32. Young GS
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Synthetic aperture radar in Europe: ERS, Envisat, and beyond 21(1), 155–161. Attema E, Desnos Y-L, and Duchossois G
Testing and diagnosis of marine atmospheric boundary-layer structure from synthetic aperture radar 21(1), 94–99. Sikora TD, Thompson DR, and Bleidorn JC

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Computation of wind vectors over the ocean using spaceborne synthetic aperture radar 21(1), 100–107. Horstmann J, Lehner S, Koch W, and Tonboe R

Estimating oceanic mixed-layer depth from internal wave evolution observed from Radarsat-1 SAR 21(1), 130–135. Li X, Clemente-Colón P, and Friedman KS

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Flood and coastal zone monitoring in Bangladesh with Radarsat ScanSAR: Technical experience and institutional challenges 21(1), 148–154. Werle D, Martin TC, and Hasan K

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