

PUBLICATIONS

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

Boon JE, and Gorman BM

Applying game theory to balance risk and cost for security inspection systems, Chap. 16 in *Managing Critical Infrastructure Risks*, Linkov I, Wenning RJ, Kiker GA (eds.), Springer, Dordrecht, The Netherlands, pp. 309–326 (2007).

Dunham DW

A spectacular Pleiades occultation, *Sky and Telescope* 111(4), 61–62 (2006).

Dunham DW

Upcoming asteroid occultations, *Sky and Telescope* 111(6), 63–64 (2006).

Guo Y, and Farquhar R

Baseline design of New Horizons mission to Pluto and the Kuiper Belt, *Acta Astronautica* 58(10), 550–559, doi: 10.1016/j.actaastro.2006.01.012 (2006).

Hindman HB, McCally RL, Myrowitz E, Terry MA, Stark WJ, Weinberg RS, and Jun AS

Evaluation of deep lamellar endothelial keratoplasty surgery using scatterometry and wavefront analysis, *Ophthalmology* 114(11), 2006–2012, doi: 10.1016/j.ophtha.2007.01.009 (Nov 2007).

Huang J, Miragliotta JA, Becknell AF, and Katz HE

Hydroxy-terminated organic semiconductor-based field-effect transistors for phosphonate vapor detection, *J. Am. Chem. Soc.* 129(30), 9366–9376, doi: 10.1021/ja068964z (2007).

Ku HC, Awadallah RS, McDonald RL, and Woods NE

Fast and accurate algorithm for electromagnetic scattering from 1-D dielectric ocean surfaces, *IEEE Transactions on Antennas and Propagation* 54(8), 2381–2391, doi: 10.1109/TAP.2006.879193 (2006).

Lippa TP, Eustis SN, Wang D, and Bowen KH

Electrophilic properties of common MALDI matrix molecules, *Int. J. of Mass Spectrom.* 268(1), 1–7, doi: 10.1016/j.ijms.2007.07.019 (2007).

Maurer RH, Kinnison JD, and Roth DR

Neutron production from 200–500 Me V proton interaction with spacecraft materials, *Radiation Protection Dosimetry* 116(1–4), 125–130, doi: 10.1093/rpd/nci157 (2005).

Moore KL, and Lucarelli DG

Decentralized adaptive scheduling using consensus variables, *Int. J. of Robust and Nonlinear Control* 17, 921–940, doi: 10.1002/rnc.1143 (2007).

Peter W

Quiet direct simulation Monte-Carlo with random timesteps, *J. Comput. Phys.* 221(1), 1–8, doi: 10.1016/j.jcp.2006.06.008 (2007).

Ryals KT

Modeling and simulation: An underused tool in operations research, *INFORMS Computing Soc. Newsletter Spring 2007*, pp. 7–9, <http://computing.society.informs.org/newsletters/ICSnews-Spring2007.pdf> (2007).

See KC, Becknell AF, Miragliotta JA, and Katz HE

Enhanced response of n-channel naphthalenetetracarboxylic diimide transistors to dimethyl methylphosphonate using phenolic receptors, *Adv. Materials* 19, 3322–3327, doi: 10.1002/adma.200602924 (2007).

Wickenden DK, Awadallah RS, Vichot PA, Brawley BM, Richards EA, Spicer JWM, Fitch MJ, and Kistenmacher TJ

Polarization properties of frequency-selective surfaces comprised of spiral resonators, *IEEE Transactions on Antennas and Propagation* 55(9), 2591–2597, doi: 10.1109/TAP.2007.904089 (2007).

PRESENTATIONS

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

Csutak A, Silver DM, Tózsér J, Steiber Z, Hassan Z, and Berta A

Plasminogen activator for promoting wound healing after laser vision correction surgery, *German Ophthalmological Soc. Annu. Mtg.*, Berlin, Germany (Sep 2005).

Csutak A, Silver DM, Tózsér J, Steiber Z, Hassan Z, and Berta A

Haze prevention after laser vision correction surgery, *World Ophthalmology Congress*, São Paulo, Brazil (Feb 2006).

Hindman HB, McCally RL, Myrowitz E, Terry MA, Stark WJ, Weinberg RS, and Jun AS

Evaluation of deep lamellar endothelial keratoplasty (DLEK) surgery using scatterometry and wavefront analysis, *Assoc. for Res. in Vision and Ophthalmology Annu. Mtg.*, Fort Lauderdale, FL (May 2007).

Horner NC, Topper JS, and Garr ME

Communications modeling: Development and use of executable communications models for net-centric operations and warfare analysis, *75th Military Operations Res. Soc. Symp.*, Annapolis, MD (Jun 2007).

Lutz R, Babilot M, and Eirich P

Federation VV&A in support of the urban resolve 2015 experiment, *Spring 2007 Simulation Interoperability Workshop*, Presentation No. 07S-SIW-033, Norfolk, VA (Mar 2007).

McCally RL, Vito ECL, Emmert DG, and Gottsch JD

Light scattering in patients with late-onset Fuchs corneal dystrophy, *Assoc. for Res. in Vision and Ophthalmology Annu. Mtg.*, Fort Lauderdale, FL (May 2007).

Saksena A, Dunne J, Benmohamed L, Lucarelli D, Wang I, and Henrick R

In-network fusion for optimal system-wide detection performance, *National Defense Industrial Association (NDIA) Undersea Distributed Networked Systems Conf.*, Newport, RI (Feb 2007).

Silver DM, and Quigley HA

Iris structure: Mathematical model and analysis, *Assoc. for Res. in Vision and Ophthalmology Annu. Mtg.*, Fort Lauderdale, FL (May 2006).

Topper JS, and Horner NC

Knowledge and C2 modeling: A framework to support net-centric operations and warfare analysis, *75th Military Operations Res. Soc. Symp.*, Annapolis, MD (Jun 2007).

CONFERENCES WITH PROCEEDINGS

APL staff members were among those who gave the following presentations that appeared in conference proceedings:

Chang Y, Lear MH, McGrath BE, Heyler GA, Takashima N, and Owings WD

New Horizons launch contingency effort, in *Space Technol. and Applications Int. Forum (STAIF) 2007 Proc.*, El Genk, MS (ed.), AIP Conf. Proc. 880, Albuquerque, NM, pp. 590–596 (Feb 2007).

Cole RG, and Farroha BS

Implications of precedence and preemption requirement on packet-based transport architectures, in *MILCOM 2007 Proc.*, Orlando, FL (Oct 2007).

Coolahan JE

Planning for an integrated M&S framework for catastrophic event response, in *Spring 2007 Simulation Interoperability Workshop*, Paper No. 07S-077, Norfolk, VA (Mar 2007).

Coolahan JE, Kane MT, Schloman, JF, Koomullil RP, Shih AM, Ito Y, Kaisar EI, Walsh KK, and Abdullah MM

Design of an urban chemical disaster simulation federation for preparedness and response, in *Fall 2007 Simulation Interoperability Workshop*, Paper No. 07F-048, Orlando, FL (Sep 2007).

Diehl CP, Namata GMS, and Getoor L

Relationship identification for social network discovery, in *Proc. of the 22nd National Conference on Artificial Intelligence (AAAI-07)*, Vancouver, Canada (Jul 2007).

Farroha BS, and Farroha DL

Policy-based QoS implementation in a SOA enterprise framework, in *MILCOM 2007 Proc.*, Orlando, FL (Oct 2007).

Hogue PG, Rooney M, Webb AT, Huebert D, Marinelli B, Daugherty A, and Price DJ

Rohacell® foam for space applications, in *Society for the Advancement of Material and Process Engineering Conf. 2007 (SAMPE '07)*, Paper No. B328, Baltimore, MD, p. 13 (Jun 2007).

Lear MH, McGrath BE, Takashima N, and Heyler GA

JHU/APL breakup analysis tool (APLbat) for the New Horizons radiological contingency, in *Space Technol. and Applications Int. Forum (STAIF) 2007 Proc.*, El Genk, MS (ed.), AIP Conf. Proc. 880, Albuquerque, NM, pp. 571–578 (Feb 2007).

Lutz R, Babilot M, and Eirich P

Federation VV&A in support of the urban resolve 2015 experiment, in *Spring 2007 Simulation Interoperability Workshop*, Paper No. 07S-SIW-033, Norfolk, VA (Mar 2007).

McGrath BE, Frostbutter DA, and Chang Y

Probabilities of ground impact conditions of the New Horizons spacecraft and RTG for near launch pad accidents, in *Space Technol. and Applications Int. Forum (STAIF) 2007 Proc.*, El Genk, MS (ed.), AIP Conf. Proc. 880, Albuquerque, NM (Feb 2007).

Roth MW, Hunnell JC, Murphy KE, and Scheck AE

High-resolution foliage penetration with gimbaled lidar, in *Laser Radar Technology and Applications XII, Proc. of the SPIE*, Vol. 6550, Paper No. 6550-19, Orlando, FL, pp. 1–9 (May 2007).

The following papers appeared in conference proceedings available on CD-ROM:

Castner AK, Chukhman IA, Colbert EJ, Dale ME, Lewis BY, and Zaret DR

An agent-supported simulation framework for metric-aware dynamic fidelity modeling, in *Spring Simulation MultiConf. 2007 Proc.*, Norfolk, VA, pp. 79–86 (Mar 2007).

COLLOQUIA

The following topics were presented at the weekly APL Colloquia in 2007:

Jan 5

Next Generation Deep Space Network: Vision for the Next 100 Years (AI Mahan Colloquium), B Geldzahler, NASA

Jan 12

Iraq: The Past, The Present, and The Way Ahead, RA King, Author

Jan 19

NSA: A History of Domestic Eavesdropping, J Bamford, Author

Feb 2

Using Neutron Radiography to Study Hydrogen Fuel Cells, D Jacobson, National Institute of Standards and Technology

Feb 9

What Lies Beneath? Using Radar to Look Below the Surface of the Moon and Mars, B Campbell, Smithsonian Institution

Feb 16

Aeronautical Research Activities in Hypersonics at the NASA Glenn Research Center (Black History Colloquium), I Blankson, NASA Glenn Research Center

Feb 23

Forensic Aspects of Explosion/Bombing Investigations, R Kelly, FBI

Mar 2

Riding the World's Biggest Wave: Preparedness and Recovery Lessons from the 2004 Indian Ocean Tsunami in Thailand, D Meadows, National Oceanic and Atmospheric Administration

Mar 16

Field Procedures for Tracking Stability in Burning Buildings, Z Duron, Harvey Mudd College

Mar 23

Theory and Practice of the New Science of Market Intelligence, JG Rickards, Global-I Advisors, LLC

Apr 4

Special Operations and Disaster Medicine. Common Challenges? Common Solutions?, A Moloff, Consultant

Apr 27

Solid Oxide Fuel Cells: Challenges for Applications Beyond Hydrogen, G Jackson, University of Maryland, College Park

May 4

Origin of the Moon, SF Singer, Science & Environmental Policy Project

May 16

War On Terror in Asia, "Basilan Model" and Indirect Approach, DP Fridovich, Commander, U.S. Special Operations Command, Pacific

May 18

Genes for Common, Chronic Diseases (Asian Pacific American Heritage Colloquium), A Chakravarti, JHU School of Medicine

June 1

A Tribute to Euler, W Dunham, Muhlenberg College

June 6

Building a "Web-Scale Computing" Architecture, J Barr, Amazon Web Services

Aug 24

Estonia: Information Warfare and Strategic Lessons, G Evron, Security Evangelist, Beyond Security

Sept 28

A Tale of Two Asteroids, or Catastrophic Disruption Revisited, AF Cheng, APL

Oct 5

QCD, Strings and Black Holes: A Duality Between Gravity and Field Theory (Hispanic Heritage Colloquium), J Maldacena, Institute for Advanced Study

Oct 12

Space Wars: The First Six Hours of World War III, WB Scott, Author

Oct 26

The Costs of Unsuitability and Benefits of Building-In Reliability, Availability and Maintainability, EA Seglie, Operational Test and Evaluation, Office of the Secretary of Defense

Nov 5

Digital Apollo: Human and Machine in Six Lunar Landings, D Mindell, Massachusetts Institute of Technology

Nov 7

WildTrack: A Synergy of Wild Beasts, Ancient Tracking Skills and Modern Techniques for Footprint Identification, S Alibhai and Z Jewell, WildTrack

Nov 16

Bionanotechnology and Mechanoevolution, B Layton, Drexel University

Nov 30

The Hart Prizes for Excellence in Independent Research & Development, JC Mayfield, AJ Newman, and KJ Rebello, APL

Dec 7

The Superstorm of 1859: Learning from the Past to Anticipate Future Consequences, S Odenwald, NASA Goddard Space Flight Center

Dec 14

Deep Ancestry: Inside the Genographic Project, S Wells, National Geographic Society