

APL Awards for Publications and R&D

For APL, 2002 was a milestone marking 60 years of extraordinary accomplishments in national security, space sciences, applied research, biomedicine, and education. One of the most significant factors contributing to the Laboratory's sustained vigor is its staff, whose dedication and passion for excellence are APL trademarks.

Each year the Laboratory honors members of the professional staff for outstanding publications and projects from the preceding year. These awards for meritorious writing and the R. W. Hart Prizes represent APL's best in publications and technical achievement.

The Editorial Board of the *Johns Hopkins APL Technical Digest* solicits from each APL department nominations of publications to compete in six categories. Judges recommend either an award or honorable mention for outstanding publications, basing their selections on the significance of the work and its clarity, with considerably greater weight given to the former. In the 2001 competition, eight departments nominated 25 publications; of these, eight won awards and two received honorable mention.

The R. W. Hart Prizes for Excellence in Independent Research and Development (IR&D) recognize significant contributions to the advancement of general science and technology. Named for Robert W. Hart, who guided APL's effort in independent research and exploratory development from 1972 until his retirement in 1989, the Hart Prizes signify the importance of the IR&D Program to the future of the Laboratory. Similar to the process for the writing awards, the Science and Technology Council solicits from each APL department nominations of science and engineering projects considered to be outstanding during the previous year. Prizes are awarded in two categories—one for the best research project and the other for the best development project. David P. Silberberg, Amy K. Karlson, Jessica L. Pistole, and Rosemary A. Daley of the Research and Technology Development Center won the 2001 Hart Prize for Excellence in Research for their development of a simplified approach for accessing large repositories of heterogeneous information. The Hart Prize for Development was awarded to Kenneth V. Kitman of the Air Defense Systems Department for his work in advanced infrared sensors and classification techniques in ballistic missile defense target discrimination.

The 2001 awards were formally announced at the Principal Professional Staff reception held on 7 November 2002. The winners, along with the titles of their publications and projects, follow.

Linda L. Maier-Tyler

PUBLICATION AWARDS FOR 2001

Outstanding First Paper in a Classified or Unclassified Publication

Award



Steven P. Burns
Senior Professional Staff
M.S., Purdue Univ., 1995
Missile Modeling and Simulation



Jeffrey J. Scherock
Senior Professional Staff
M.S., Univ. of Notre Dame, 1996
Missile Modeling and Simulation

for publication in *Proc. 10th Annual AIAA/BMDO Technology Conf.* (Jul 2001)

Outstanding Research Paper in the *Johns Hopkins APL Technical Digest*

Walter G. Berl Award



Donald D. Duncan
Principal Professional Staff
Ph.D., Ohio State Univ., 1977
Physical Optics



Daniel T. Prendergast
Senior Professional Staff
B.S., Ohio State Univ., 1985
Electro-Optical Systems Development

Kevin C. Baldwin
Senior Professional Staff
Ph.D., JHU, 1998
Electro-Optical Systems Engineering



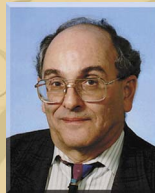
David H. Terry
Senior Professional Staff
M.S., JHU, 1992
Infrared Systems Engineering



David W. Blodgett
Senior Professional Staff
Ph.D., JHU, 1998
Near-Field Optics



Michael E. Thomas
Principal Professional Staff
Ph.D., Ohio State Univ., 1979
Optical Properties of Materials, Remote Sensing



Richard I. Joseph
Principal Professional Staff
Ph.D., Harvard Univ., 1962
Electromagnetic Theory



Suzanne C. Walts
Associate Professional Staff
M.S., Univ. of Michigan, 1999
Optics, Material Science



Mark J. Mayr
Principal Professional Staff
M.S., JHU, 1981
Electro-Optical Systems Engineering

Michael J. Elko (non-APL staff)

for "Experimental and Theoretical Assessment of Mechanical and Optical Effects in Nonuniformly Heated IR Windows," *Johns Hopkins APL Technical Digest* 22(3), 394-408 (2001)

Outstanding Development Paper in the *Johns Hopkins APL Technical Digest*

Walter G. Berl Award



Leo R. Gauthier Jr.
Senior Professional Staff
M.S., JHU, 1997
Applied Opto-Electronic Systems



Christopher L. Eddins
Associate Professional Staff
B.S., Univ. of Maryland, 1995
Electrical Systems Engineer



John M. Klimek
Senior Professional Staff
B.S., Univ. of Wyoming, 1988
Performance Verification Systems



Angela L. Barrios
Senior Professional Staff
Ph.D., Virginia Polytechnic Inst., 1996
Electro-Optical System Design



Louis A. Mattes
Senior Professional Staff
B.S., JHU, 1986
Aerospace Propulsion Testing



Dale E. Clemons
Senior Professional Staff
M.S., JHU, 1996
Solid Mechanics and Structural Analysis

Robert F. Walsh Jr.
Senior Professional Staff
B.S., Old Dominion Univ., 1990
Advanced Aerospace Propulsion Systems

for "Blast Instrumentation for Lethality Assessment," *Johns Hopkins APL Technical Digest* 22(3), 355–366 (2001)

Outstanding Research Paper in an Externally Refereed Publication

Award



Juan I. Arvelo Jr.
Senior Professional Staff
Ph.D., Catholic Univ. of America, 1990
Applied Research



Allan P. Rosenberg
Senior Professional Staff
Ph.D., Duke Univ., 1970
Computational Acoustics

for "Three-Dimensional Effects on Sound Propagation and Matched-Field Processor Performance," *Journal of Computational Acoustics* 9(1), 17–39 (2001)

Award



Todd B. Pittman
Senior Professional Staff
Ph.D., UMBC, 1996
Quantum Optics, Quantum Computing



Bryan C. Jacobs
Senior Professional Staff
M.S., JHU, 1994
Quantum Cryptography,
Digital Signal Processing



James D. Franson
Principal Professional Staff
Ph.D., California Inst. of Technology, 1977
Quantum Optics, Information Processing

for "Probabilistic Quantum Logic Operations Using Polarizing Beam Splitters," *Physical Review A* 64, 062311–062311-9 (2001)

Outstanding Development Paper in an Externally Refereed Publication

Award



Andreas K. Chrysostomou
Principal Professional Staff
M.A., Univ. of Maryland, 1979
Target-Tracking, Sensor Fusion

for publication in the *2001 National Fire Control Symp. Proc. 2*, (Aug 2001)

Award



Jeffrey L. Hanson
Principal Professional Staff
Ph.D., JHU, 1996
Oceanic and Atmospheric Research

Owen M. Phillips (JHU)

for "Automated Analysis of Ocean Surface Directional Wave Spectra," *Journal of Atmospheric and Oceanic Technology* 18, 277–293 (2001)

Honorable Mention



J. Michael Ruohoniemi
Principal Professional Staff
Ph.D., Univ. of Western Ontario, 1986
Space Physics

Robin J. Barnes
Associate Professional Staff
M.A., Univ. of Cambridge, 1998

for "The Response of the High-Latitude Ionosphere to the Coronal Mass Ejection Event of April 6, 2000: A Practical Demonstration of Space Weather Nowcasting with the Super Dual Auroral Radar Network HF Radars," *Journal of Geophysical Research* 106(A12), 30,085–30,097 (2001)



Raymond A. Greenwald
Principal Professional Staff
Ph.D., Dartmouth College, 1970
Ionospheric and Space Research

Simon G. Shepherd (non-APL staff)

Special Publications

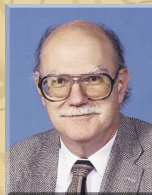
Award (for Book Chapter)



Steven A. Lloyd
Senior Professional Staff
Ph.D., Harvard Univ., 1993
Atmospheric Chemistry and Radiation

for "The Changing Chemistry of Earth's Atmosphere," Chap. 7, in *Ecosystem Change and Public Health: A Global Perspective*, J. L. Aron and J. A. Pabst (eds.), The Johns Hopkins University Press, Baltimore, MD (2001)

Honorable Mention (for Book Chapter)



Harry K. Charles Jr.
Principal Professional Staff
Ph.D., JHU, 1972
Electronic Packaging

Rao R. Tummala (non-APL staff)

for "Fundamentals of Multichip Packaging," Chap. 8, in *Fundamentals of Microsystems Packaging*, pp. 296–340, McGraw-Hill, New York (2001)

R. W. HART PRIZE FOR 2001

Excellence in Research



David P. Silberberg
Senior Professional Staff
Ph.D., Univ. of Maryland, College Park, 2002
Distributed Information Systems Research



Jessica L. Pistole
Associate Professional Staff
M.S., Univ. of Illinois, 1998
Software Engineering and Development



Amy K. Karlson
Associate Professional Staff
M.S., JHU, 2000
Software Design and Development



Rosemary A. Daley
Senior Professional Staff
B.S.E.E., Rensselaer Polytechnic Inst., 1985
Information System Engineering

for "A Simplified Approach for Accessing Large Repositories of Heterogeneous Information"

Excellence in Development



Kenneth V. Kitzman
Senior Professional Staff
M.S.E.E., Texas A&M Univ., 1990
Infrared Discrimination Algorithms

for "Advanced Infrared Sensors and Classification Techniques in Ballistic Missile Defense Target Discrimination"

THE AUTHOR



LINDA L. MAIER-TYLER received a B.A. in English from the University of Maryland, College Park, in 1968. She attended George Washington University where she completed courses toward a certificate in the Publication Specialist Program. She joined APL in 1983 and has been on the *Johns Hopkins APL Technical Digest* editorial staff since 1986, serving as Assistant Editor-in-Chief for the past 10 years. She was a co-guest editor of the special anniversary issue of the *Digest* celebrating APL's 50 years of service to the nation. In addition, Ms. Maier-Tyler was Assistant Editor-in-Chief of the *APL Technical Review* in 1994. She oversees the annual APL Writing Awards Program that recognizes staff for outstanding publications. Ms. Maier-Tyler is a member of the Society for Scholarly Publishing. Her e-mail address is linda.maier-tyler@jhuapl.edu.