APL Achievement Awards and Prizes

Recognizing excellence in the work of the professional staff is an important activity at APL. To foster and highlight exceptional scholarship and seminal advancements in the sciences and in engineering and technology, APL established three annual awards programs to identify and document outstanding professional work among its scientists, engineers, and educators. These programs collectively celebrate 20 years as a unique presence at APL and play an important role in both encouraging professional achievement and honoring the men and women whose work exemplifies and sustains APL’s legacy of excellence.

APL’s first awards program, the competition for meritorious writing, was established in 1985. The Editorial Board of the Johns Hopkins APL Technical Digest solicits from each APL department nominations of publications from the previous year to compete for awards in six categories. Members of the Editorial Board judge the entries and base their selections of winning publications on significance and clarity, with considerably greater weight given to the significance of the work in advancing science, engineering, or the mission of the Laboratory. In the 2004 competition, 8 technical departments nominated 41 publications; of these, 7 won awards, including 1 book.

The R. W. Hart Prizes for Excellence in Independent Research and Development were established in 1989 to recognize significant contributions to the advancement of general science and technology. These prizes honor Robert W. Hart, a leader in APL’s Independent Research and Development efforts and an exemplar of the scientific achievement and technical excellence that this prize represents. 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. Council members judge the nominations, basing their selections on the quality and importance of the work to the Laboratory. Prizes are awarded in two categories: best research project and best development project. Seven nominations were received from four departments—three for research and four for development. Of these, one research and one development project won honors for 2004.

To encourage and recognize new technology and innovation at the Laboratory, the Invention of the Year Awards were established in 2000 to identify the top technology from the preceding year. The APL Office of Technology Transfer and the Office of Patent Counsel form an independent review panel by inviting technology transfer
professionals, intellectual property attorneys, and people from the technical and business communities to judge the inventions. Winning technologies are chosen in two categories—Physical Science and Information Science. Special awards are also given for innovative contributions to the military and space. Judges base their selection of the winning inventions on creativity, novelty, improvement over existing technology, and potential benefit to society. For 2004, 177 APL researchers disclosed 135 inventions. Of these, two inventions were selected, one in Physical Science and one in Information Science. In addition, a special achievement award was given for Innovative Contributions to the Military.

Exceptional scholarship and achievement in the sciences, engineering, and technology are critical components of APL’s competitive strength. Awardees serve as models for their colleagues, inspirations to junior scientists and engineers, and leaders in their fields. These honors reflect the outstanding work that has been done by APL staff. Their names and photographs are displayed on the following pages, along with the titles of their publications, projects, and inventions.

Linda L. Maier-Tyler
Outstanding Research Paper in an Externally Refereed Publication

Steven M. Babin
Senior Professional Staff
Ph.D., University of Maryland, 1996
Atmospheric Science, Medicine, and Engineering
J. A. Carton, T. D. Dickey, J. D. Wiggert (co-authors)

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

Outstanding Development Paper in an Externally Refereed Publication

Robert DeMajistre
Senior Professional Staff
Ph.D., George Mason University, 2005
Data Analysis
L. P. Goncharenko, A. B. Christensen (co-authors)
Outstanding Professional Book

Ben Bussey
Senior Professional Staff
Ph.D., University College London, 1995
The Moon

Paul D. Spudis
Principal Professional Staff
Ph.D., Arizona State University, 1982
Lunar Science and Resources


Outstanding Special Publication

Louise M. Prockter
Senior Professional Staff
Ph.D., Brown University, 2000
Planetary Geology

R. W. HART PRIZE FOR 2004

Excellence in Research

Stephen M. Scorpio
Senior Professional Staff
Ph.D., University of Michigan, 1997
Fluid Dynamics

Alan Brandt
Principal Professional Staff
Ph.D., Carnegie Mellon University, 1966
Ocean Physics and Fluid Dynamics

Eric A. Ericson
Principal Professional Staff
Ph.D., University of Michigan, 1997
Remote Sensing

Charles E. Schemm
Principal Professional Staff
Ph.D., Princeton University, 1974
Oceanic and Atmospheric Sciences
For “Surface Wake Modeling.”

Ricardo C. Blackett
Associate Professional Staff
M.S., Virginia Polytechnic Inst., 2001
Mechanical Systems Engineering

Joseph F. Hopkins Jr.
Engineering Assistant
Hydrodynamics Research

For “Surface Wake Modeling.”
Excellence in Development

William G. Bath
Principal Professional Staff
Ph.D., JHU, 1983
Radar Signal Processing and Tracking

Geoffrey L. Silberman
Principal Professional Staff
M.S.E., JHU, 1999
Stochastic Modeling and Inference

Bradford S. Weir
Senior Professional Staff
M.S., JHU, 2003
Sensor Netting and Data Fusion

Frank W. Hsu
Associate Professional Staff
M.S., University of Pennsylvania, 2002
Multi-Sensor Tracking and Fusion

Ariel M. Greenberg
Associate Professional Staff
B.S., University of Maryland, 2003
Electrical Engineering and Biology

Sze-Ping Kuo
Principal Professional Staff
M.S., MIT, 1976
Sensor Tracking and Network Analysis

Ralph L. Gootee
Associate Professional Staff
B.A., Salisbury University, 2006
Software Engineering and Analysis

John Samsundar
Senior Professional Staff
Ph.D., Iowa State University, 1996
Sensor Fusion, Optimization, Navigation and Control

For “Air Defense Interoperability.”
INVENTION OF THE YEAR AWARDS FOR 2004

Physical Sciences

Henry A. Kues
Principal Professional Staff
Essex Community College and JHU
Chemistry and Bioelectromagnetics


Information Sciences

Jerry A. Krill
Assistant Director of Programs
Ph.D., University of Maryland, 1978
Networked Systems

For “3-D Display with Walkthrough and ‘Virtual Visitation’ Features for Command and Control Centers, Teleconferencing and Personal Communication.”

Innovative Contributions to the Military

Matthew G. Bevan
Principal Professional Staff
Ph.D., University of Maryland, 1997
Sensors and Physiology

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

For “Apparatus and Method for Providing Secure Multi-Channel Optical Laser Communications.”

Bradley G. Boone
Principal Professional Staff
Ph.D., University of Virginia, 1977
Optical Communications and Imaging

Ann G. Darrin
Principal Professional Staff
M.S., University of Maryland, 1993
Advanced Miniaturization of Electronics

Raymond M. Sova
Principal Professional Staff
Ph.D., JHU, 2002
Photonics