



Editorial

H. J. Caulfield, Editor *Optical Engineering*

The Rudolf Kingslake Medal and Prize, 1979

The winner of the Rudolf Kingslake Medal and Prize for 1979 is Dr. J. R. Fienup of the Environmental Research Institute of Michigan. His award-winning paper on "Space Object Imaging through the Turbulent Atmosphere" appeared in *Optical Engineering* 18(5), 529 (1979). This work, begun with his 1975 thesis work at Stanford, developed in several papers prior to this one, and was summarized by him in *Optical Engineering* 19(3), 297 (1980). Fienup showed that an iterative computer process can reconstruct an object scene from a noisy record of the modulus of its Fourier transform. Since speckle interferometry can be used to derive a diffraction-limited modulus of the Fourier transform, application of Fienup's analysis to the retrieval of diffraction-limited images in speckle interferometry proved quite promising.

With this award, Dr. Fienup joins a distinguished list of prior winners, including:

- Irving R. Abel and B. R. Reynolds, 1974,
- J. M. Burch and C. Forno, 1975,
- Richard E. Swing, 1976,
- David B. Kay and Brian J. Thompson, 1977, and
- Norman J. Brown, 1978.

The Board of Governors of SPIE joins the editor in offering congratulations to Dr. Fienup.

Rudolf Kingslake Medal & Prize citation:
A silver-plated bronze medal may be awarded annually in recognition of the most noteworthy original paper to appear in the Society's official journal, *Optical Engineering*, on the theoretical or experimental aspects of optical engineering. All papers published in the journal are automatically eligible for consideration for this award, which carries an honorarium of one thousand dollars.

The Kingslake Medal and Prize were presented to J. R. Fienup at SPIE's 24th Annual Technical Symposium, July 30, 1980, in San Diego, California.



OPTICAL ENGINEERING EDITORIAL SCHEDULE

NOVEMBER/DECEMBER 1980

Novel Interferometry

George W. Hopkins, Guest Editor
521 Castle Rock Terrace
Sunnyvale, CA 94087 (415/493-1212)

Chris L. Koliopoulos, Guest Editor
Optical Sciences Center
University of Arizona
Tucson, AZ 85721 (602/626-3020)

Optical Particle Measurement

James D. Trolinger, Guest Editor
Spectrum Development Labs., Inc.
3303 Harbor Blvd., Suite G-3
Costa Mesa, CA 92626 (714/549-8477)

JANUARY/FEBRUARY 1981

Optical Polarimetry

R. M. A. Azzam, Guest Editor
University of New Orleans
Electrical Engineering Dept.
New Orleans, LA 70122 (504/283-0650)

David L. Coffeen, Guest Editor
National Aeronautics and Space Admin.
Institute for Space Studies
2880 Broadway
New York, New York 10025

Atmospheric Optical Communication

Cardinal Warde, Guest Editor
Massachusetts Institute of Technology
Dept. of Elec. Engineering & Computer Sci.
Room 13-3134
Cambridge, MA 02139 (617/253-6858)

MARCH/APRIL 1981

Opto-Mechanical Design

Paul R. Yoder, Jr., Guest Editor
The Perkin-Elmer Corporation
Norwalk, CT 06856 (203/762-1000)

MAY/JUNE 1981

Optical Data Recording

A. Jamberdino, Guest Editor
Rome Air Development Center
Griffiss Air Force Base
Rome, NY 13441 (315/330-4581)

JULY/AUGUST 1981

Application of Optics to Energy Processes

Gerald W. Stewart, Guest Editor
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Bedford, MA 01730 (617/275-9400)

Kent Casleton, Guest Editor
Morgantown Energy Technology Center
P. O. Box 880
Morgantown, WV 26505 (304/599-7573)

SEPTEMBER/OCTOBER 1981

Photo-Optical Instrumentation Engineering

Special papers to be invited by an editorial board of distinguished optical engineers, in celebration of the 25th Anniversary of the Society of Photo-Optical Instrumentation Engineers and the 20th Anniversary of this journal, *Optical Engineering*.