

APS show

at the March General Meeting
of the American Physical Society

Detroit Plaza

March 27-29, 1984

The largest APS Meeting of the year; **2000** papers. Invited paper sessions on • Biological • Chemical • Condensed Matter • Electron and Atomic • High Polymer Physics

Hardware categories figuring prominently include:

Tuneable laser/
components

Cryogenics/vacuum

Data Acquisition

Spectrometry

(Optical, NMR

Mössbauer, UV,

X-Ray, Neutron, etc.)

EXHIBITORS

(as of 11/1/83)

Air Products & Chemicals

American Magnetics

Amplifier Research

Blake Industries

Canberra Industries

Coherent

Cryofab

Cryosystems

CTI Cryogenics

CVI, Inc.

Datametrics Dresser

EG & G PARC

HPS Corporation

IBM Instruments

Instruments, SA

International Cryogenics

Ithaco

Janis Research

Keithley Instruments

Lake Shore Cryotronics

Kurt J. Lesker

Matec, Inc.

MDC Manufacturing

Mech-tronics Nuclear

Microscience

Minnesota Valley Eng.

MKS Instruments

MMR Technologies

Moxon Electronics

Newport Corporation

Nicolet Instruments

Nuclear Data, Inc.

Oriel Corp.

Oxford Instruments N.A.

P.E. Physical Electronics

P.E. Vacuum Products

Precision Cryogenic System

S.H.E.

L.M. Simard

South Bay Technologies

Spectra-Physics

Spex Industries

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Oxford University Press

Plenum Publishing

Springer-Verlag

John Wiley & Sons

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historical details. For example, how does Boltzmann's "dictionary" evolve as he addresses different problems over time? Bellone recognizes that the concept of probability is central to the work of Boltzmann and others, and that its role changes, but he doesn't identify in detail the particular route by which probability evolved from an averaging tool to a concept of fundamental physical significance. Nor does he treat with any sophistication crucial differences in the degree of commitment to mechanical models along the ontological-heuristic axis, or the frequent tension between scientists' private opinions and the views they regard as publically tenable.

Although *A World on Paper* neither lives up to historiographic pretensions nor succeeds as narrative history of science, Bellone does have some interesting things to say about his major protagonists, and the book can be read with profit by students of 19th-century physics who can exercise a moderating judgment on its claims.

KENNETH L. CANEVA

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new books

Instrumentation and Techniques

Computer Aided Design: Fundamentals and Systems Architectures. J. Encarnacao, E. G. Schlectendahl. 346 pp. Springer-Verlag, New York, 1983. \$29.50

Advances in X-Ray Analysis. Vol. 26. Proc. Thirty-First Annual Conference on Applications, Denver, August 1982. C. R. Hubbard, C. S. Barrett, P. K. Predecki, D. E. Leyden, eds. 473 pp. Plenum, New York, 1983. \$62.50

Reviews of Infrared and Millimeter Waves. Papers, 20th General Assembly of the Union-Radio-Scientifique Internationale, Washington, August 1981. Vol. 1. K. J. Button, ed. 372 pp. Plenum, New York, 1983. \$45.00

Methods of Steady-State Reactor Physics in Nuclear Design. R. J. J. Stamm'ler, M. J. Abbate. 506 pp. Academic, New York, 1983. \$48.00. *reference*

Lock-in Amplifiers: Principles and Applications. M. L. Meade. 232 pp. Peter Peregrinus, (US dist. IEEE, Piscataway, N.J.), 1983. \$60.00

Miniaturization of High-Energy Physics Detectors. Proc. Meeting, University of Pisa, Italy, A. Stefanini, ed. 259 pp. Plenum, New York, 1983. \$39.50

Fortran Optimization. M. Metcalf. 242 pp. Academic, New York, 1983. \$24.00. *reference*

High Gradient Magnetic Separation. R. Gerber, R. R. Birss. 209 pp. Wiley, New York, 1983. \$51.95

The Randon Transform and Some of Its Applications. S. R. Deans. 289 pp. Wiley, New York, 1983. \$34.95. *reference*

The Visual Display of Quantitative Information. E. R. Tufte. 197 pp. Graphics, Cheshire, Conn., 1983. \$34.00

Ion Implantation for Materials Processing. F. A. Smidt, ed. 244 pp. Noyes Data, Park Ridge, N.J., 1983. \$32.00. *compendium*

Handbook of Measurement Science. Vol. 2. Practical Fundamentals. P. H. Sydenham, ed. 578 pp. Wiley, New York, 1983. \$97.95

Thin Film Device Applications. K. L. Chopra, I. Kaur. 300 pp. Plenum, New York, 1983. \$42.50. *graduate text*

Materials Science and Condensed Matter

Glassy Metals II: Atomic Structure and Dynamics, Electronic Structure, Magnetic Properties. H. Beck, H. J. Guntherodt, eds. 395 pp. Springer-Verlag, New York, 1983. \$44.00. *compendium*

Dielectric Relaxation in Solids. A. K. Jonscher. 380 pp. Chelsea Dielectrics, London, 1983. \$56.00. *reference*

Dynamical Properties of IV-VI Compounds. H. Bilz, A. Bussmann-Holder, W. Jantsch, P. Vogl. 101 pp. Springer-Verlag, New York, 1983. \$25.00. *two articles*

Vibrations at Surfaces. Proc. Third International Conference, Asilomar, Cal., September 1982. C. R. Brundle, H. Morawitz, eds. 309 pp. Elsevier, New York, 1983. \$147.00

Neutron Scattering and Muon Spin Rotation. R. E. Lechner, D. Richter, C. Riekel. 229 pp. Springer-Verlag, New York, 1983. \$37.00. *two articles*

Solid State Devices 1982. ESSDERC-SSSDT Meeting, Munich, September 1982. A. Goetzberger, M. Zerbst, eds. 201 pp. Physik-Verlag, Deerfield Beach, Fla., 1983. \$46.00

Bimetallic Catalysts: Discoveries, Concepts, and Applications. J. H. Sinfelt. 164 pp. Wiley, New York, 1983. \$32.50

Glass: Science and Technology. Vol. 1. Glass-Forming Systems. D. R. Uhlmann, N. J. Kreidl, eds. 465 pp. Academic, New York, 1983. \$74.50. *compendium*

Student Texts and Popularizations

Physics Handbook: Elementary Constants and Units, Tables, Formulae and Diagrams and Mathematical Formulae. C. Nordling, J. Osterman. 431 pp. Studentlitteratur, Lund, Sweden, 1982. \$23.00

Laws of the Game: How the Principles of Nature Govern Chance. M. Eigen, R. Winkler. 347 pp. Harper & Row, New York, 1983. \$8.95

Elements of Applied Physics. J. E. Betts. 612 pp. Reston, Reston, Va., 1983. \$19.95

The Real Future. T. A. Heppenheimer. 295 pp. Doubleday, Garden City, N.Y. \$17.95

Prelude to Physics. C. Swartz. 202 pp. Wiley, New York, 1983. \$13.95. *text preparatory to college physics*

Powers of Ten: A Book About the Relative Size of Things in the Universe and the Effect of Adding Another Zero. P.

Morrison, P. Morrison. 150 pp. Scientific American (dist. Freeman, San Francisco), 1983. \$29.95

Tetrascroll: Goldilocks and the Three Bears: A Cosmic Fairy Tale. R. B. Fuller. 129 pp. St. Martin's, New York, 1983. \$7.95

SI: The International System of Units. R. A. Nelson. 126 pp. AAPT, Stony Brook, N.Y., 1982. \$4.00

From Sundials to Atomic Clocks: Understanding Time and Frequency. Republication. J. Jespersen, J. Fitz-Randolph. 175 pp. Dover, New York, 1982. \$5.00

The Lighter Side of Gravity. J. V. Narlikar. 194 pp. Freeman, San Francisco, 1982. \$9.95

College Physics. F. Miller Jr. 876 pp. Harcourt Brace Jovanovich, San Diego, Cal., 1982. \$23.95

Making Science Laboratory Equipment: A Manual for Students and Teachers in Developing Countries. X. F. Carelse. 273 pp. Wiley, New York, 1983. \$18.95

Life in Space. R. G. Mason, ed. Time-Life, 304 pp. Time-Life, Alexandria, Va., 1983. \$39.95. *picture book* □



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