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this has produced from Hodges an extraordinarily interesting and brilliant chapter, "On the Beach," analyzing the climate for homosexuals in Britain in the 1950s, and incidentally coming within an ace, as I interpret it, of suggesting that Turing's death was not in fact a suicide. (It was the time of the cold war, and the suggestion is that Turing may have been perceived as a poor security risk who still possessed important knowledge of British cryptanalytical secrets.) But this strong special orientation toward his subject has, in many respects, it seems to me, worked against Hodges, narrowing his view of Turing in human terms. If so, it is a pity, for it means that Turing's sexual nature has again, in death, exacted a toll from him.

Despite these comments, the book is an excellent one, and can be read with interest and gain by a wide audience. DAVID SAYRE

> Department of Mathematical Sciences IBM Research Center

# book note

## Microcomputer Quantum Mechanics

J. P. Killingbeck. 177 pp. Hilger (US Dist. Heyden Philadelphia), 1983. \$28.00

For students owning a microcomputer, even a low-cost model such as the Sinclair ZX-81 or a programmable calculator, this book offers an introduction to the application of microcomputers in a wide variety of physical calculations, with major emphasis on quantum mechanics. Some exposure to BASIC is desirable, but even the neophyte in programming will quickly learn the most important techniques, such as subroutines and branching, from the given examples.

Several numerical methods are discussed. Some quantum-mechanical applications are treated more extensively; for example, the Schrödinger equation or the Monte Carlo optimalization. Especially the latter technique shows that a low-cost microcomputer can be an interesting tool in physics (see, for example, Per Bak's article "Doing physics with microcomputers," December, page 25).

This book contains a large number of exercises with solutions and should be of special interest to the undergraduate student who wishes to combine an introductory course in numerical methods or quantum mechanics with the acquisition of computer skills. The author is a reader in theoretical physics at the University of Hull (UK) and published Techniques of Applied Quantum Mechanics in 1975.

—AH

# new books

## Particles, Nuclei and High-Energy Physics

Fundamental Processes in Energetic Atomic Collisions. Proc. of the NATO Advanced Study Institute, September-October, 1982, Maratea, Italy, NATO Advanced Science Institutes Series. H. O. Lutz, J. S. Briggs, H. Kleinpoppen, eds. 675 pp. Plenum, New York, 1984. \$95.00

Absorption of Ionizing Radiation. D. W. Anderson. 428 pp. University Park, Baltimore, 1984. \$49.50 Text

Mesons, Isobars, Quarks and Nuclear Excitations. Progress in Particle and Nuclear Physics 11. Proc. of the International School of Nuclear Physics, Erice, April 1983. D. Wilkinson, ed. 635 pp. Pergamon, New York, 1984. \$102.00

Theory of Jets in Electron-Positron Annihilation. Springer Tracts in Modern Physics 102. G. Kramer. 140 pp. Springer-Verlag, New York, 1984. \$29.00

Quarks and Nuclear Structure. Lecture Notes in Physics 197. Proc. of the Third Klaus Erkelenz Symposium held at Bad Honnef, Germany, June 1983. K. Bleuler, ed. 414 pp. Springer-Verlag, New York, 1984. \$19.00

Proceedings of the Ninth Hawaii Topical Conference in Particle Physics (1983). R. J. Cence, E. Ma, eds. 390 pp. Hawaii U.P., Honolulu, Hawaii, 1984. \$30.00

Recent Theoretical (Computational) Developments in Atomic Collisions in Solids. Strasbourg, France, July 1981. Y. H. Ohtsuki, ed. 158 pp. World Scientific (US dist. Heyden, Philadelphia), 1984. \$28.00

Topical Symposium on High-Energy Physics. Tokyo, Japan, September, 1982. T. Eguchi, Y. Yamaguchi, eds. 391 pp. World Scientific (US dist. Heyden, Philadelphia), 1984. \$46.00

Concepts of Particle Physics, Vol. 1. K. Gottfried, V. F. Weisskopf, 189 pp. Oxford U.P., New York, 1984, \$22.50. Text

Antiproton-Proton Physics and the W Discovery. Proc. of the International Colloquium of the CNRS, Third Moriond Workshop, La Plagne, France, March 1983. J. Tran Thanh Van, ed. 670 pp. Editions Frontières, Gif-sur-Yvette, France 1984. \$65.00

Gluons and Heavy Flavours. Proc. of the Hadronic Session of the Eighteenth Recontre de Moriond, La. Plagne, France, Jan. 1983. J. Tran Thanh Van, ed. 710 pp. Editions Frontières, Gif-sur-Yvette, France, 1983. \$65.00

Beyond the Standard Model, Vol. 2. Proc. of the Leptonic Session of the 18th Recontre de Moriond, La Plagne, France, March 1983. J. Tran Thanh Van, ed. 510 pp. Editions Frontières, Gif-sur-Yvette, France, 1983. \$55.00

The Neutron and Its Applications 1982. Conference Series Number 64. P. Schofield, ed. 500 pp. Institute of Physics, London, 1984. \$59.00

Hawaii Topical Conference in Particle Physics. Selected Lectures in Particle Physics. S. Pakvasa, S. F. Tuan, eds. 1000 pp. (2 vols.) World Scientific (US dist. Heyden, Philadelphia), 1983. \$88.00 hardcover; \$42.00 paper

Proceedings of the International Summer School on Nucleon-Nucleon Interaction and Nuclear Many-Body Problems, S. S. Wu, T. T. S. Kuo, 748 pp. World Scientific (US dist. Heyden, Philadelphia), 1984. \$75.00

Nuclear Data for Science and Technology. Proc. of the International Conference, Antwerp, Sept. 1982. K. H. Böckhoff, ed. 1054 pp. Reidel, Boston, 1984. \$120.00

Theory of Nuclear Structure. M. K. Pal, 676 pp. Van Nostrand, New York, 1984. \$37.50

The Ideas of Particle Physics: An Introduction for Scientists. J. E. Dodd, 202 pp. Cambridge U. P., New York, 1984. \$44.50 hardcover; \$17.95 paper

Bosons in Nuclei. Proc. of the Workshop, Drexel, Drexel US. January 1983. D. H. Feng, S. Pittel, M. Vallieres, eds. 248 pp. World Scientific (US dist. Heyden, Philadelphia) 1984. \$37.00

Introduction to Supersymmetry in Particle and Nuclear Physics. O. Castaños, A. Frank, L. Urrutia, eds. 187 pp. Plenum, New York, 1984. \$29.50. Compendium

Perspective in Nuclear Physics at Intermediate Energies. Proc. of the Workshop held at the International Centre for Theoretical Physics, Trieste, Italy, October 1983. S. Boffi, C. Ciofi degli Atti, M. M. Giannini, eds. 560 pp. World Scientific (US dist. Heyden, Philadelphia) 1984. \$60.00

Applied Atomic Collision Physics, Vol. 4: Condensed Matter. S. Datz, ed. 630 pp. Academic, New York, 1983. \$79.00. Compendium

Proceedings of the 1st Hellenic School on Elementary Particle Physics. Corfu, Greece, September 1982, Th. Papadopoulou, N. D. Tracas, 700 pp. World Scientific (US dist. Heyden, Philadelphia) 1984. \$67.00

Intermediate Energy Nuclear Physics 1983. Proc. of the Fourth Course of the International School of Intermediate Energy Nuclear Physics, San Miniato, Italy, August 1983. R. Bergere, S. Costa, C. Schaerf, eds. 470 pp. Heyden, Philadelphia, 1984. \$51.00

Physics in Collision 3: Search for Heavy Flavors. Proc. of Physics in Collision 3 and of the Workshop, Search for Heavy Flavors, held in Como, Italy, August-September 1983. G. Bellini, A. Bettini, L. Perasso, eds. 506 pp. Editions Frontières, Gif sur Yvette, France, 1983.

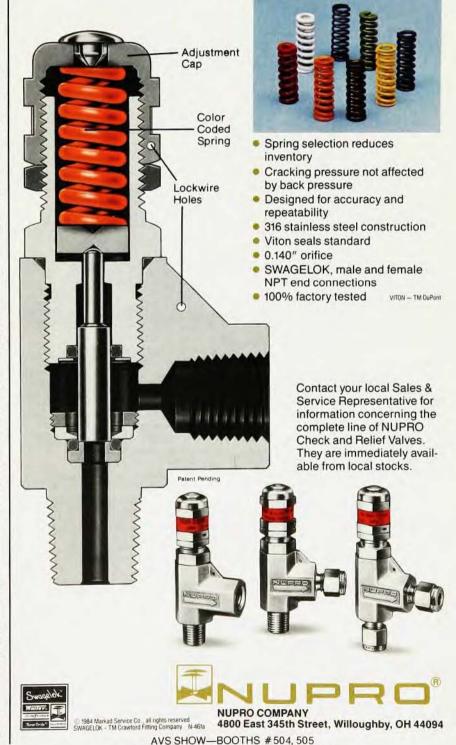
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Transmission sur Fibres Optiques: Technologie Générale. Y. Suematsu, K-I. Iga, 205 pp. Masson, New York, 1984. Monograph

Long-wave Optics: The Science and Technology of Infrared and Near-millimeter Waves. Vol. 1, Principles, Vol. 2, Applications. G. W. Chantry, 429 pp. Academic, New York, 1984. \$115.00 Monograph

The Principles of Nonlinear Optics, Y. R. Shen, 563 pp. Wiley, New York, 1984. \$49.95. Monograph

# Quantum Electronics and Lasers

Thin Films and Interfaces II, Symposium held November 1983 in Boston, Mass., J. E. E. Baglin, D. R. Campbell, W. K. Chu, eds. 684 pp. North-Holland, New York, 1984. \$85.00

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Magnetic Reconnection in Space and Laboratory Plasmas. *Geophysical Monograph 30.* E. W. Hones, Jr, eds. 386 pp. American Geophysical Union, Washington, D.C., 1984.

Nonequilibrium Phenomena II: From Stochastics to Hydrodynamics. J. L. Lebowitz, E. W. Montroll, eds. 296 pp. North-Holland, New York, 1984. \$45.00. Compendium

Fusion, An Introduction to the Physics and Technology of Magnetic Confinement Fusion. W. M. Stacey, Jr, 260 pp. Wiley, New York, 1984. \$36.95

Vortex Methods in Two-Dimensional Fluid Dynamics. Lecture Notes in Physics 203. C. Marchioro, M. Pulvirenti, eds. 137 pp. Springer-Verlag, New York, 1984. \$7.00. Monograph

Heating in Toroidal Plasmas. Proc. of the fourth International Symposium, Rome, March 1984. H. Knoepfel, E. Sindoni, eds. Vol 1 and 2, pp. 1600. International School of Plasma Physics and ENEA, Varenna, Italy, 1984. \$65.00

### **Geophysics and Planetary Science**

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Climate Processes and Climate Sensitivity. Geophysical Monograph 29. J. E. Hansen, T. Takahashi, eds. 368 pp. American Geophysical Union, Washington, D.C., 1984. No price stated.