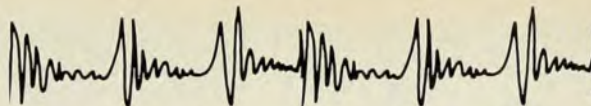
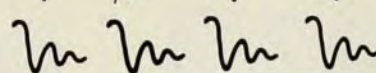
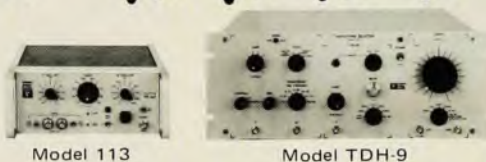


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grangian formulations, and the Langevin-type models of which the test-field model is the best example.

Inevitably, in a time of rapid change, developments have already occurred beyond those included in the book. Comparisons with direct numerical integrations of the Navier-Stokes equation continue to justify Leslie's optimistic appraisal of the test-field model. And I believe that it is becoming increasingly unlikely that a more complete turbulence theory will ever be able to compete with the simpler stochastic models on the basis of practical computability. Specifically I would caution the reader against excessive concern with the intricacies of the Lagrangian History Direct Interaction approximation, while I highly recommend the book as a whole.

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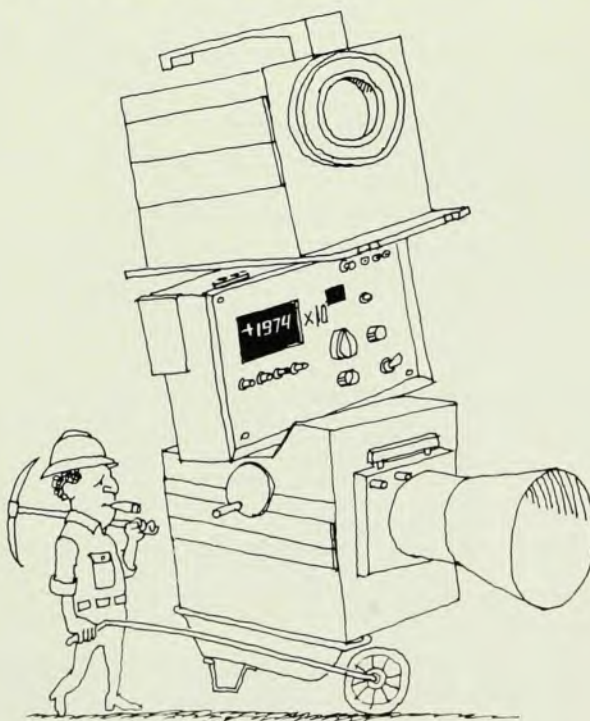
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Proceedings of the International Summer School, Wageningen, The Netherlands, July/August, 1974

edited by **E. G. D. Cohen.**

1975 xi + 414 pages US \$35.50/Dfl. 85.00

All forty lectures are contained in this book. They cover the progress made in statistical mechanics since the last summer school, seven years ago. One topic discussed at the previous meeting that continued to generate a great deal of interest was phase transitions; an introduction to Wilson's theory of critical phenomena opens the book. The approach to equilibrium (stochastic differential equations, etc.) and the algebraic approach to statistical mechanics are examined. The book also reflects recent interest in ergodic theory and computer studies in statistical mechanics, including the principles of the Monte-Carlo and molecular dynamic models.

The Solid-Vacuum Interface

Proceedings of the Third Symposium on Surface Physics, Utrecht, The Netherlands, June, 1974

edited by **G. A. Bootsma and J. W. Geus.**

Reprinted from the journal *Surface Science*, Vol. 47

1975 x + 422 pages US\$51.95/Dfl. 125.00

The aim of this conference was to report on modern methods of surface analysis with an emphasis on the structure and reactivity of solid surfaces, and sessions dealing with the development of experimental techniques and specific systems studied by several methods were included.

Magnetic Resonance and Related Phenomena

Proceedings of the 18th Ampère Congress, Nottingham, September, 1974

edited by **P. S. Allen, E. R. Andrew and C. A. Bates.**

1975 about 680 pages (in 2 vols.) US \$70.95/Dfl. 170.00

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Diffraction Physics

by **John M. Cowley**, Galvin Professor of Physics, Arizona State University, Tempe, Arizona, U.S.A.

1975 about 425 pages US \$56.25/Dfl. 135.00

This book attempts to provide a unifying treatment for all branches of diffraction based on the elementary mathematical descriptions of physical optics and wave mechanics, demonstrating how the peculiarities of the various techniques arise from the particular properties of the radiations used and showing how the results of the different methods may be interrelated.

There is an emphasis on the use of electrons which may aid the research worker concerned with X-rays and neutrons to appreciate the nature of the electron diffraction results more fully, and may provide a better background for electron microscopists and diffractionists. The kinematical and dynamical theories of diffraction are derived from the elementary ideas of physical optics with a gradual introduction of the Fourier transform as the basic mathematical tool. The development allows a general treatment, not immediately specialized for periodic objects, which permits an easy understanding of diffraction by disordered and imperfect crystals.

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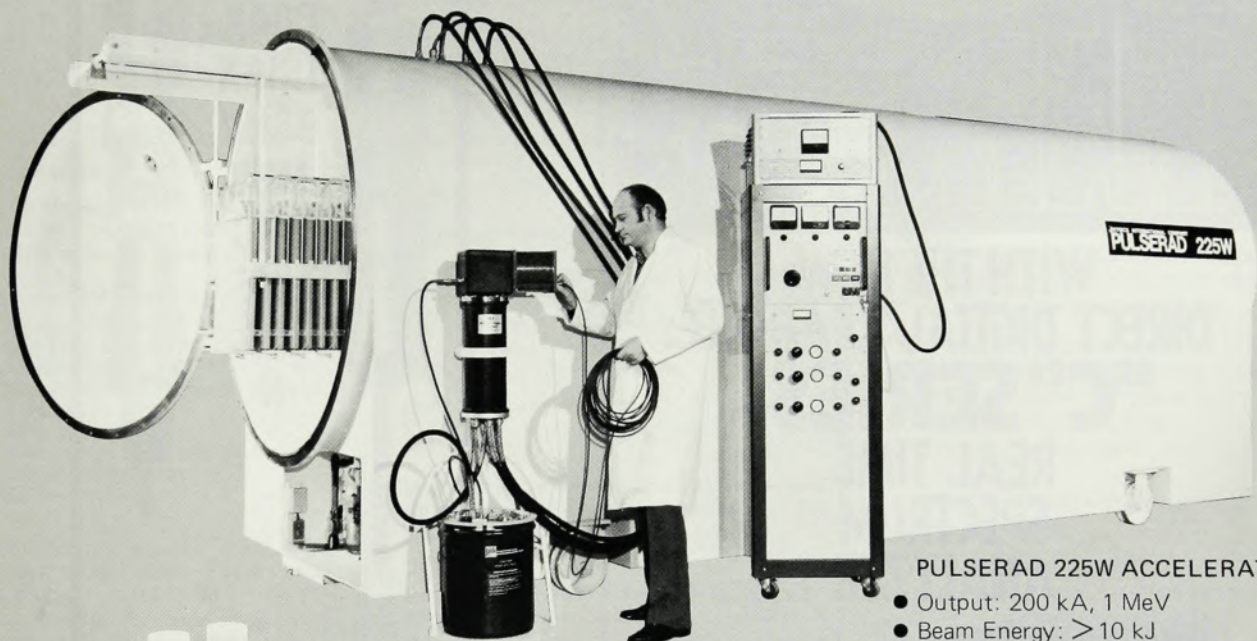
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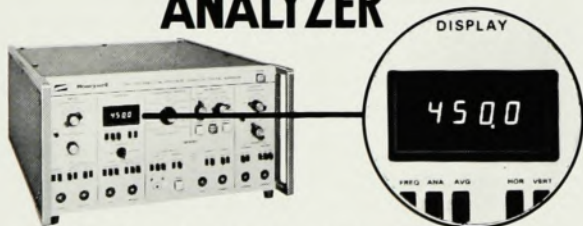
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