

Books

REGGE POLES AND S-MATRIX THEORY

by Steven C. Frautschi

W. A. Benjamin, Inc.\$8.00 cloth
\$3.95 paper

Reviewed by Yuwal Ne'eman, research fellow in theoretical physics.

S. Frautschi is one of the originators of the "new look" at elementary particles, according to which they are not really elementary but should be considered as "compounds." This is based on a formal description derived from Schrödinger theory, where bound states appear as poles in the analytically continued complex angular momentum plane — otherwise known as "Regge" poles.

Frautschi, since 1962 an assistant professor of physics at Caltech, is a Harvard graduate who took his PhD at Stanford under Professor S. D. Drell. It was while teaching at Cornell in 1961-2 that he started developing the material of this book, finally shaping it in its present form for the Summer School in Theoretical Physics

held at Bangalore, India, in June 1962. The book provides one of the best available textbooks in the dynamics of elementary particle processes, including the latest developments.

ORGANIC CHEMISTRY (2nd Edition)

by Donald J. Cram and George S. Hammond

McGraw-Hill\$10.75

Reviewed by John D. Roberts, chairman of the division of chemistry and chemical engineering.

The revision of Cram and Hammond brings to consummation a prodigious scholastic and artistic effort by two of the most imaginative and productive organic chemists of the century. (Dr. Cram is professor of chemistry at UCLA and Dr. Hammond is Arthur Amos Noyes Professor of Chemistry at Caltech.)

The revision is a deep-seated one, carried on with loving care and scrupulous attention to improving the unique and now famous Cram and Hammond approach, with the intent of making it more useful as

an introduction to organic chemistry for students of variable preparation and quality.

The artistic motif is green — green formulas, green figures, green backgrounds for the tables, green endpapers, and a green cover design. The use of color is highly imaginative and it certainly permits emphasis on those parts of the features of figures and formulas to which the authors wished to draw special attention. Without doubt a great book.

CATALOGUE OF GALAXIES AND OF CLUSTERS OF GALAXIES

California Institute of Technology...\$10

Prepared by Fritz Zwicky, Caltech professor of astrophysics, with the collaboration of E. Herzog, Volume II of this catalogue contains the positions, photographic magnitudes, and other data for about 6700 galaxies in the area from Decl. +15° to +33° of the north galactic cap, as well as positions, populations, sizes, and estimated distances for about 2350 clusters of galaxies in the same area. Volume I, published in 1961 (\$6), covers the area between Decl. -3 to +15°.



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