

ticularly apparent in algebraic manipulations. There is no rational reason in retaining the old W ; even Racah has completely switched over to the six- j -coefficient.

Notwithstanding the flaws, this booklet should prove convenient and useful both as a tool in computations and as a compact introduction to angular-momentum theory.

An Introduction to Transport Theory. By G. Milton Wing. 169 pp. John Wiley & Sons, Inc., New York, 1962. \$7.95. *Reviewed by George Weiss, University of Maryland.*

MOST physicists are familiar with one form or another of transport theory as a physical theory. In this book, transport theory is presented as a purely mathematical theory along the lines of recent work of Bellman and collaborators on the invariant-imbedding method. Unfortunately, it does not appear that this method leads to the solution of any fundamental problems although it does, however, lead to a unified and elegant derivation of transport equations.

Wing analyzes few physical problems. Instead, he first concentrates on some one-dimensional rod examples, which can be solved exactly and then proceeds to set up equations for more complicated systems. The concept of criticality remains, throughout the book, a fairly mysterious one since the author deals with mathematical systems rather than physical ones. The only fairly realistic problems for which solutions are actually found are those of reflection from a semi-infinite slab first treated by Chandrasekhar, and the Milne problem solved by the Wiener-Hopf technique. The solutions to these problems are given in somewhat abbreviated form possibly because the author does not consider it part of his main contribution.

It may indeed be of some value to try to understand the mathematical problems of transport theory independently of physical interpretation, and for those whose interests are mainly mathematical this book provides a good interpretation. Those whose interests are directed towards the solution of actual physical problems will find this to be a disappointing book.

Progress in Microscopy. By M. Françon. 295 pp. Row, Peterson & Co., Elmsford, N. Y., 1961. \$9.00. *Reviewed by W. T. Wintringham, Bell Telephone Laboratories.*

THERE is a tendency today to look across the Atlantic and to comment that European facilities for training in the field of optics are far superior to those in the United States. One proper measure of such a difference is the content of publications on the two sides of the ocean.

Such comparison does little to refute the belief that the Europeans are ahead of us in the formal preparation of source material. The pages of the journals and transactions of the scientific societies in England and on the Continent contain a substantial fraction of re-

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