Physics of the Twentieth Century

Pascual Jordan has written a fine survey of the concepts of twentieth century physics from his vantage point at the border between theoretical physics and metaphysics. His picture is clearly delineated, well organized, and skillfully presented. It resembles a photograph in that everything is presented from a single point of view. The author develops certain philosophic implications of modern physics and mentions a few experiments which establish his points. Everything else is omitted. Some who look at twentieth century physics will see radios, radar, cyclotrons and other atom smashers, nuclear energy, and a wealth of physical knowledge which has revolutionized the lives and fears of common men. Not Jordan! He sees (a) the development of relativity theory, (b) the evidence that energy is "atomic" in nature, and (c) the uncertainty principle, which has changed the physicist's attitude toward causality and related problems. These theories are of great importance and certainly rank high among the contributions of the past half century, but they do not stand alone.

In the latter part of his book Jordan devotes considerable attention to such topics as the "liquidation of materialism" and "positivism and religion" in which he seems deeply engrossed. For anyone who is interested in the abstract concepts underlying physics, and their relationships in the realm of ideas, Jordan's book is well worth reading.—John N. Cooper.