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Inward Bound: Of Matter and Forces in the Physical World

Abraham Pais

Oxford University Press (1986)

Abstract

Abraham Pais's *Subtle Is the Lord* was a publishing phenomenon: a mathematically sophisticated exposition of the science and the life of Albert Einstein that reached a huge audience and won an American Book Award. Reviewers hailed the book as "a monument to sound scholarship and graceful style", "an extraordinary biography of an extraordinary man", and "a fine book". In this groundbreaking new volume, Pais undertakes a history of the physics of matter and of physical forces since the discovery of x-rays. The book attempts to relate not only what has happened over the last hundred years but why it happened the way it did, what it was like for those scientists involved, and how what at the time may have seemed a series of bizarre or unrelated events, now with hindsight emerges as a logical sequence of events. Pais, a noted physicist, was personally involved in many of the developments he describes, and thus *Inward Bound*, like his earlier book, is filled with unique insights into the world of big and small physics. Between 1895 and 1983, the period he covers, the smallest distances explored have shrunk a hundred millionfold, Pais notes. Along this incompletely traveled "road inward," scientists have established markers that later generations will rank among the principal monuments of the twentieth century. In alternating technical and nontechnical sections, this magisterial survey richly conveys what has been discovered about the constituents of matter, the laws to which they are subject, and the forces that act on them. But the advances have certainly not come smoothly. The book shows that these have been times of progress and stagnation, of order and chaos, of clarity and confusion, of belief and incredulity, of the conventional and the bizarre; also of revolutionaries and conservatives, of science by individuals and by consortia, of little gadgets and big machines, and of modest funds and big money. About the Author: Abraham Pais is Detlev W. Bronk Professor of Physics

at the Rockefeller University. The author of the prizewinning biography of Einstein now undertakes a history of modern physics

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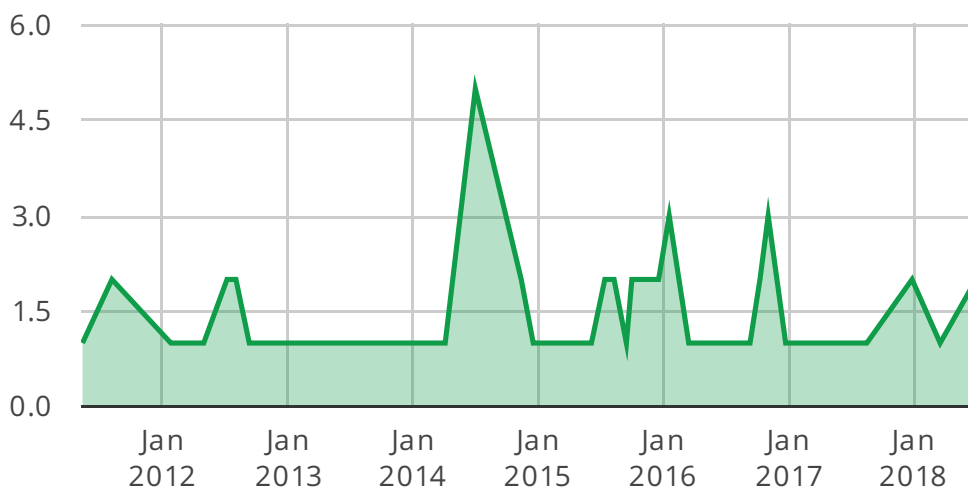
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