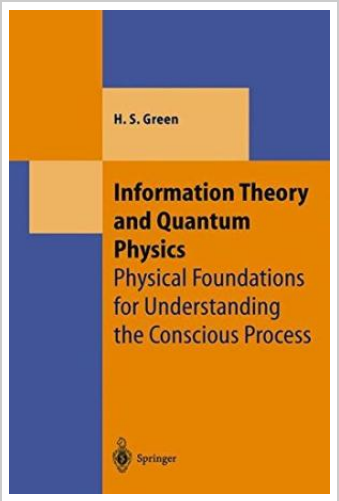

Information Theory and Quantum Physics

By Herbert S. Green

Springer-Verlag Gmbh Nov 1999, 1999. Buch. Book Condition: Neu. 242x162x17 mm. Neuware - In this book, H. S. Green, a former student of Max Born and well known as an author in physics and in philosophy of science, presents an individual and modern approachto theoretical physics and related fundamental problems. Starting from first principles, the links between physics and information science are unveiled step by step: modern information theory and the classical theory of the Turing machine are combined to create a new interpretation of quantum computability, which is then applied to field theory, gravitation and submicroscopic measurement theory and culminates in a detailed examination of the role of the conscious observer in physical measurements. The result is a highly readable book that unifies a wide range of scientific knowledge and is essential reading for all scientists and philosophers of science interested in the interpretation and the implications of the interaction between information science and basic physical theories. 244 pp. Englisch.