

CONTENTS

PREFACE	IX
D. BOHM / On the Creation of a Deeper Insight Into What May Underlie Quantum Physical Law	1
J. S. BELL / The Measurement Theory of Everett and de Broglie's Pilot Wave	11
M. FLATO / Quantum Mechanics and Determinism	19
E. P. WIGNER / On Hidden Variables and Quantum Mechanical Probabilities	33
S. J. FREEDMAN, R. A. HOLT, and C. PAPALIOLIOS / Experimental Status of Hidden Variable Theories	43
J. GRÉA / Pre-Quantum Mechanics. Introduction to Models with Hidden Variables	61
C. PIRON / On the Foundations of Quantum Physics	105
B. MIELNIK / Quantum Logic: Is It Necessarily Orthocomplemented?	117
Z. MARIĆ and D.J. ŽIVANOVIĆ / The Stochastic Interpretation of Quantum Mechanics and the Theory of Measurement	137
D. BLOKHINTSEV / Statistical Ensembles in Quantum Mechanics	147
S. WATANABÉ / Conditional Probability in Wave Mechanics	159
R. L. ANDERSON and J. G. NAGEL / Classical Electrodynamics in Terms of a Direct Interparticle Hamiltonian	167
T. TAKABAYASI / Theory of One-Dimensional Relativistic Elastic Continuum for the Model of Particles and Resonances	179
J. GÉHÉNIAU / On the Photon Theory of L. de Broglie	217

M. A. TONNELAT / From the Photon to the Graviton and to a General Theory of Corpuscular Waves	227
J.-P. VIGIER / Possible Implications of de Broglie's Wave-Mechanical Theory of Photon Behaviour	237
INDEX OF NAMES	251