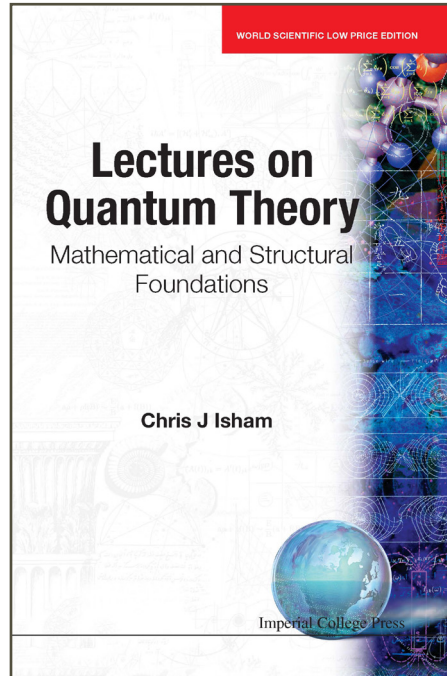


LECTURES ON QUANTUM THEORY

Mathematical and Structural Foundations

By
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College, London, UK*)



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ABOUT THE BOOK

This book is based on material taught to final-year physics undergraduates as part of the theoretical physics option at Imperial College. After a self-contained introduction to the essential ideas of vector spaces and linear operators, a bridge is built between the concepts and mathematics of classical physics, and the new mathematical framework employed in quantum mechanics. The axioms of nonrelativistic quantum theory are introduced, and shown to lead to a variety of new conceptual problems. Subjects discussed include state-vector reduction, the problem of measurement, quantum entanglement, the Kochen-Specker theorem, and the Bell inequalities. The book includes twenty-five problems with worked solutions.

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