



Lectures on Light: Nonlinear and Quantum Optics Using the Density Matrix (Hardback)

By Stephen C. Rand

Oxford University Press, United Kingdom, 2016. Hardback. Book Condition: New. 2nd Revised edition. 247 x 192 mm. Language: English . Brand New Book. This book attempts to bridge in one step the enormous gap between introductory quantum mechanics and the research front of modern optics and scientific fields that make use of light. Hence, while it is suitable as a reference for the specialist in quantum optics, it will also be useful to the non-specialists from other disciplines who need to understand light and its uses in research. With a unique approach it introduces a single analytic tool, namely the density matrix, to analyze complex optical phenomena encountered in traditional as well as cross-disciplinary research. It moves swiftly in a tight sequence from elementary to sophisticated topics in quantum optics, including laser tweezers, laser cooling, coherent population transfer, optical magnetism, electromagnetically induced transparency, squeezed light, quantum information science and cavity quantum electrodynamics. A systematic approach is used that starts with the simplest systems - stationary two-level atoms - then introduces atomic motion, adds more energy levels, and moves on to discuss first-, second-, and third-order coherence effects that are the basis for analyzing new optical phenomena in incompletely characterized systems....



READ ONLINE
[2.7 MB]

Reviews

The ebook is straightforward in go through preferable to recognize. It typically does not charge too much. Its been designed in an exceptionally straightforward way and it is just following i finished reading this book where basically altered me, affect the way i really believe.

-- **Dr. Reta Murphy**

It becomes an amazing pdf which i actually have at any time read through. This can be for all those who statte there had not been a worthy of reading through. You wont sense monotony at anytime of your own time (that's what catalogues are for relating to should you check with me).

-- **Claud Kris**