Introduction To Quantum Optics

Advanced text in quantum optics.This textbook provides a physical understanding of what photons are and of their properties and applications. Special emphasis is made in the text to entangled photon pairs which exhibit quantum mechanical correlations over manifestly macroscopic distances. Such photon pairs make possible such exciting techniques as teleportation and quantum cryptography, as well as the physical realisation of Einstein-Podolsky-Rosen type experiments. In addition, nonclassical properties of light, such as photon antibunching and squeezing, as well as quantum phase measurement and optical tomography are discussed. The author describes relevant experiments and elucidates the physical ideas behind them. This book will be of interest to undergraduates and graduate students studying optics, and to any physicist with an interest in the mysteries of the photon and exciting modern work in quantum cryptography and teleportation. EAN/ISBN : 9780511192593 Publisher(s): Cambridge University Press Format: ePub/PDF Author(s): Paul, Harry - Jex, Igor

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