



The Light Fantastic: A Modern Introduction to Classical and Quantum Optics (2nd Revised edition)

By Ian Kenyon

Oxford University Press. Paperback. Book Condition: new. BRAND NEW PRINT ON DEMAND., The Light Fantastic: A Modern Introduction to Classical and Quantum Optics (2nd Revised edition), Ian Kenyon, A thorough introduction to modern classical and quantum optics, appropriate for advanced undergraduates or beginning graduates. The emphasis is on building an understanding in straightforward steps. Digital cameras, LCD screens, laser welding, and the optical fibre-based internet illustrate the penetration of optics in twenty-first century life: many such modern applications are presented from first principles. Self-contained themes covered in the book include: - Paraxial ray optics for devices including matrix methods and aberrations. - Interference, coherence and interferometry. - Diffraction, spectrometry and Gaussian optics. - Fourier optics, holography and information processing. - Astronomical telescopes, adaptive optics and aperture synthesis. - Maxwell's theory; scattering, absorption and dispersion in bulk materials; multilayer filters. - Quantum phenomena, wave-particle duality and the uncertainty principle. - Schroedinger's analysis of spectra, photon properties. - Laser principles; He:Ne to MQW lasers and applications. - Detectors: photodiodes, CCDs, PMs and image intensifiers; response, noise and linearity. - Fibre optics: single mode fibre analysis; the modern data highway; fibre sensors. -Photon-atom interactions, optical cooling and optical clocks. -Second quantization.

Reviews

This written ebook is great. I was able to comprehended every little thing using this written e publication. I am very happy to tell you that this is the finest ebook i have go through during my individual existence and could be he greatest ebook for possibly.

-- Simone Goyette II

This is the finest publication we have read through right up until now. Better then never, though i am quite late in start reading this one. Its been written in an remarkably easy way in fact it is only after i finished reading through this book by which basically altered me, affect the way i think.

-- Dr. Gabriella Hayes