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Sommario/riassunto

This undergraduate textbook presents thorough coverage of the standard topics of classical optics and optical instrument design; it also offers significant details regarding the concepts of modern optics. Its survey of the mathematical tools of optics grants students insights into the physical principles of quantum mechanics.Two principal concepts occur throughout: a treatment of scattering from real scatterers (leading to Huygens' principles, diffraction theory, the index of refraction, and related topics); and the difference between coherent and noncoherent wave phenomena. Examinations of su