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Sommario/riassunto

Miniaturization and mass replications have begun to lead the optical industry in the transition from traditional analog to novel digital optics. As digital optics enter the realm of mainstream technology through the worldwide sale of consumer electronic devices, this timely book aims to present the topic of digital optics in a unified way. Ranging from micro-optics to nanophotonics, and design to fabrication through to integration in final products, it reviews the various physical implementations of digital optics in either micro-refractives, waveguide (planar lightwave chips), diffractive and hybrid optics or sub-wavelength structures (resonant gratings, surface plasmons, photonic crystals and metamaterials). Finally, it presents a comprehensive list of industrial and commercial applications that are taking advantage of the unique properties of digital optics. . Helps optical engineers review and choose the appropriate software tools to design, model and generate fabrication files.. Gives product managers access to an exhaustive list of applications available in today's market for integrating such digital optics, as well as where the next potential application of digital optics might be.. Provides a broad view for technical marketing managers in all aspects of digital optics, and how such optics can be classified.. Explains the numerical implementation of optical design and modelling techniques.. Enables micro-optics foundries to integrate the latest fabrication and replication techniques, and accordingly fine tune their own fabrication processes.. Supplementary book material is available at www.applieddigitaloptics.com Applied Digital Optics is aimed primarily at optical engineers and product development and technical marketing managers; it is also of interest to graduate-level photonics students and micro-optic foundries.
