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Sommario/riassunto	This book deals with the fundamentals of wave optics, polarization, interference, diffraction, imaging, and the origin, properties, and optical effects of turbulence in the Earth's atmosphere. Techniques developed during the last few decades to overcome atmospheric image degradation (including passive methods, speckle interferometry in particular, and active methods such as adaptive optics), are highlighted. Also discussed are high resolution sensors, image processing, and the astronomical results obtained with these techniques.