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Nota di contenuto	Part I: The impulse response for modified apertures and resolution in microscopy -- Chapter 1. Resolution in microscopy and defect of focus with modulated apertures -- Chapter 2: Linear aperture -- Chapter 3: Linear - quadratic aperture -- Chapter 4: A Study on Star Aperture and Their Application in Confocal Scanning Laser Microscope -- Chapter 5: A Study on Some Transparent Rose Apertures: An Application on the Confocal Laser Scanning Microscope and the Speckle Images -- Chapter 6: A new model of modulated aperture -- Part II: Application of confocal laser microscope and speckle images -- Chapter 7: Cauchy aperture and its application in confocal microscopy -- Chapter 8: Speckle images formed by diffusers using conical and linear apertures.
Sommario/riassunto	This book serves as a valuable resource for researchers and graduate students specializing in optical engineering and optical sciences.

Comprising three distinct parts, it addresses fundamental aspects and practical applications of modulated apertures in microscopy. The first part delves into the fabrication of modulated apertures and the computation of impulse responses or point spread functions (PSFs). It offers essential insights into the foundational concepts of modulated aperture design. The second part focuses on the utilization of modulated apertures in speckle imaging, elucidating their significance and relevance in this context. This section provides a comprehensive understanding of the practical applications of modulated apertures in image formation. The third and final part explores the application of modulated apertures within the framework of a confocal scanning laser microscope. The objective here is to enhance microscope resolution and image contrast, contributing to theadvancement of microscopy techniques. This book offers a concise and objective exploration of modulated apertures' fabrication, applications, and their potential to enhance microscopy. This book is a valuable reference for students and researchers seeking to deepen their knowledge in this specialized field.