

1. Record Nr.	UNINA9910991161403321
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Titolo	Studies on the Confocal Laser Microscope / / by Abdallah Mohamed Hamed
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2025
ISBN	9783031872754 3031872754
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (XIII, 143 p. 91 illus., 42 illus. in color.)
Collana	SpringerBriefs in Applied Sciences and Technology, , 2191-5318
Disciplina	502.82
Soggetti	Microscopy Geometrical optics Wave theory of light Lasers Image processing Medical physics Optical Microscopy Classical Optics, Geometric and Wave optics Laser Technology Image Processing Medical Physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Basics of Confocal Scanning Laser Microscopy (CSLM) -- The Point Spread Function (PSF) for Some Modulated Apertures -- Computation of Coherent Transfer Functions (CTFs) for Some Modulated Apertures -- The Imaging of Microscopic Objects Using a Confocal Microscope -- Theoretical Study of a Coherent Non-scanned Laser Microscope (CNSM) -- Computation of the Lateral and Axial Point Spread Functions in Confocal Imaging Systems Using Binary Amplitude Mask -- Exenteration Errors Combined with Wavefront Aberration -- Aberration Studies Using a Confocal Scanning Laser Microscope -- Spatial Coherence in Confocal Microscopy for Quadratic Radially Distributed Apertures -- Spatial Coherence in Confocal Microscopy for Black and

## White Annular Apertures -- Application of Confocal Laser Scanning Microscopy to Cardiac Images.

### Sommario/riassunto

This book provides a thorough exploration of various modulated apertures and their impact on improving microscope resolution, with a focus on confocal scanning laser microscopy (CSLM). Over the course of eleven chapters, it looks at both the theoretical aspects and practical applications of different aperture shapes. Chapters 1 and 2 review apertures with linear, quadratic, and concentric black-and-white (B/W) zones, along with linear-quadratic and polynomial designs. Additionally, apertures with Hamming, Cauchy, rectangular, and hexagonal shapes are analyzed for their potential to enhance imaging performance. Chapter 3 presents the computation of coherent transfer functions (CTFs) for selected modulated apertures, offering insights into their influence on imaging quality. Chapter 4 focuses on confocal microscopes, exploring how these apertures affect the imaging of microscopic objects. A theoretical study of coherent non-scanned laser microscopes (CNSM) is covered in Chapter 5. Chapter 6 addresses the computation of lateral and axial point spread functions (PSFs) in confocal imaging systems that use binary amplitude masks, while Chapter 7 investigates the effects of misalignment errors combined with wavefront aberrations in systems using linear and quadratic apertures. In Chapter 8, diffraction intensity is calculated for a confocal microscope with a laterally displaced truncated Gaussian aperture, extending the principles of Marechal microscopy to confocal scanning microscopy. Chapters 9 and 10 examine spatial coherence in confocal optical systems, particularly in the context of quadratic and concentric B/W apertures. The book concludes in Chapter 11 with an application of cardiac apertures in CSLM, demonstrating their use in processing cardiac images. This work serves as a valuable reference for researchers and professionals interested in advancing microscope resolution through innovative aperture design and analysis.

2. Record Nr.	UNINA9910959836603321
Autore	Lawton Denis
Titolo	Social class, language and education
Pubbl/distr/stampa	London, : Routledge & K. Paul, 1968
ISBN	1-134-68512-2 1-134-68513-0 1-280-56671-X 9786610566716 0-203-00129-X
Edizione	[1st ed.]
Descrizione fisica	1 online resource (192 p.)
Collana	International library of sociology. Race, class and social structure ; ; v. 15
Disciplina	306.43 371.9
Soggetti	Sociolinguistics Children - Language Educational sociology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliography (p. 162-173) and index.
Nota di contenuto	Preliminaries; CONTENTS; PREFACE AND ACKNOWLEDGEMENTS; LIST OF TABLES; I Social Class and Educational Opportunity; II Motivation, Subculture and Educability; III Empirical Evidence on the Relation between Language and Social Background; IV Language and Thought; V A Critique of Bernstein's Work on Language and Social Class; VI An Experimental Study of the Speech and Writing of some Middle- and Working-class Boys; VII Some Proposed Intervention Programmes in the U.S.A. in Great Britain; VIII Conclusion; BIBLIOGRAPHY; INDEX
Sommario/riassunto	Titles in the Class, Race and Social Structure set of the International Library of Sociology consider every problem of socio-political importance that affected society in the years following the Second World War.