# Holographic Imaging



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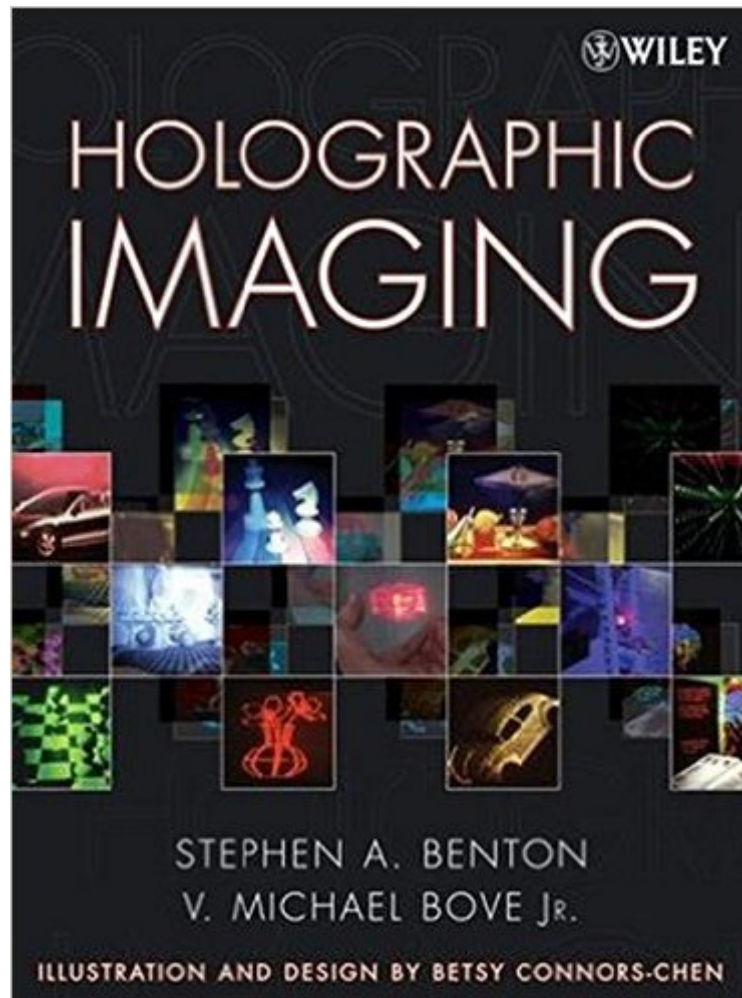
## Synopsis

The only all-inclusive treatment of holographyâ"from fundamental principles to the most advanced concepts While several existing texts cover different aspects of the field of holography, none provides a complete, up-to-date, and accessible view of its popular, scientific, and engineering aspects. Now, from an author team that includes one of the world's pioneers in the field, Holographic Imaging fills this need with a single, comprehensive text that covers the subject from traditional holography to the cutting-edge development of the world's most advanced three-dimensional holographic images, holographic printing, and holographic video. Written in an engaging and easy-to-follow style, Holographic Imaging promotes a hands-on approach to making holograms and provides readers with a working understanding of how and why they work. Following a brief introduction to the fundamentals of light and diffraction, coverage includes: the diffraction efficiency of gratings, "platonic" holography, a ray-tracing analysis of holography, holographic lenses and in-line "Gabor" holography, off-axis "Leith & Upatnieks" holography, non-laser illumination of holograms, phase conjunction and real image projection, full-aperture transfer holography, white-light transmission "rainbow" holography, practical issues in rainbow holography, in-line "Denisyuk" reflection holography, off-axis reflection holography, edge-lit holography, computational display holography, holographic printing, and holographic television. Helpful diagrams and equations that summarize the mathematical and physical principles for each technique discussed make this an approachable resource for readers from a variety of backgrounds, including undergraduate and postgraduate students with an interest in optics, optoelectronics, and information display, as well as researchers, scientists, engineers, and technology-savvy artists.

## Book Information

Holographic Imaging Principles of Dental Imaging (PRINCIPLES OF DENTAL IMAGING ( LANGLAND)) Holographic Data Storage: From Theory to Practical Systems Holographic Visions: A History of New Science The Holographic Universe: The Revolutionary Theory of Reality Holographic Interferometry: A Mach-Zehnder Approach An Introduction To Black Holes, Information And The String Theory Revolution: The Holographic Universe The Physics of Medical Imaging (Medical Science Series) Image Processing and Acquisition using Python (Chapman & Hall/CRC Mathematical and Computational Imaging Sciences Series) Basics of PET Imaging: Physics, Chemistry, and Regulations Getting Started With UAV Imaging Systems: A Radiometric Guide (Press Monograph) Diffusion Weighted and Diffusion Tensor Imaging: A Clinical Guide Diagnostic Ultrasound Imaging: Inside Out, Second Edition (Biomedical Engineering) Fundamentals of Electro-Optic Systems Design: Communications, Lidar, and Imaging Imaging Atlas of the Pelvic Floor and Anorectal Diseases Transmission Electron Microscopy: Diffraction, Imaging, and Spectrometry Inverse Synthetic Aperture Radar Imaging With MATLAB Algorithms A Practical Introduction to Computer Vision with OpenCV (Wiley-IS&T Series in Imaging Science and Technology) Healing Anxiety and Depression: Based on Cutting-Edge Brain Imaging Science Murderous Minds: Exploring the Criminal Psychopathic Brain: Neurological Imaging and the Manifestation of Evil