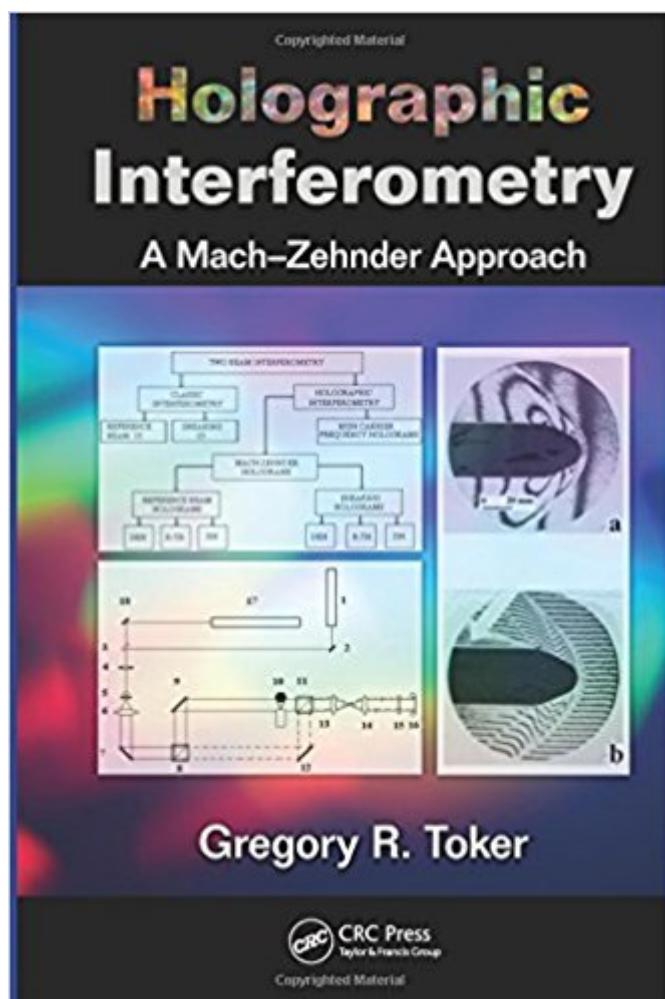


The book was found

Holographic Interferometry: A Mach-Zehnder Approach



Synopsis

Transparent in the visible range, phase objects can be studied in the optical range using holographic interferometry. Typically, the holograms are recorded on high-resolving-power holographic photo materials, but a lower spatial resolution is sufficient for successful research in many scientific applications. Holographic Interferometry: A Machâ “Zehnder Approach offers practical guidance to research scientists and engineers using Machâ “Zehnder holographic interferometry methods to study phase objects in the laboratory. The Machâ “Zehnder approach allows the use of standard photographic film and electronic CCD/CMOS sensors with low resolving power, making it a simpler and more affordable option for testing many types of phase objects. This book demonstrates how to use standard photographic film for the optical recording and reconstruction of Machâ “Zehnder holograms. It also illustrates techniques for using CCD/CMOS cameras to digitally record Machâ “Zehnder holograms/interferograms of transparent objects. Bringing together original research and information scattered throughout existing literature, this book focuses on the holographic reference beam and shearing interferometry methods. In particular, it looks at how these methods and optical schemes can be directly applied to testing aerodynamic flows, as well as to plasmas, shocks, and waves in noncoherent laserâ “matter interactions. Numerous reconstructed and classic interferograms, deflectograms, and Schlierenograms illustrate the material, helping readers develop and design their own optimal optical scheme and choose applicable details to apply the approach. Describing methods in a mathematically simple and accessible way, this book is also suitable for graduate students in the fields of aerospace engineering and optics, as well as those in laser, thermal, and plasma physics.

Book Information

Hardcover: 211 pages

Publisher: CRC Press; 1 edition (March 5, 2012)

Language: English

ISBN-10: 1439881871

ISBN-13: 978-1439881873

Product Dimensions: 6.4 x 0.7 x 9.3 inches

Shipping Weight: 1.1 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #2,077,954 in Books (See Top 100 in Books) #415 in Books > Science & Math > Physics > Light #582 in Books > Science & Math > Chemistry > Analytic #3004

[Download to continue reading...](#)

Holographic Interferometry: A Mach-Zehnder Approach Road to Mach 10: Lessons Learned from the X-43a Flight Research Program (Library of Flight Series) Angle of Arrival Estimation Using Radar Interferometry (Electromagnetics and Radar) Interferometry and Synthesis in Radio Astronomy Phase Estimation in Optical Interferometry Holographic Imaging Holographic Data Storage: From Theory to Practical Systems Holographic Visions: A History of New Science The Holographic Universe: The Revolutionary Theory of Reality An Introduction To Black Holes, Information And The String Theory Revolution: The Holographic Universe The Better Bladder Book: A Holistic Approach to Healing Interstitial Cystitis & Chronic Pelvic Pain[THE BETTER BLADDER BOOK: A HOLISTIC APPROACH TO HEALING INTERSTITIAL CYSTITIS & CHRONIC PELVIC PAIN] by Cohan, Wendy (Author) on Nov-09-2010 Paperback Creative Child Support Strategies A Fathers Rights Approach: A Fathers Rights Approach (The Pro-Active Fathers Rights Series Book 2) A Practical Approach to Cardiac Anesthesia (Practical Approach Series) A Practical Approach to Obstetric Anesthesia (A Practical Approach to Anesthesia) A Practical Approach to Pediatric Anesthesia (Practical Approach to Anesthesia) Critical Care Nursing: A Holistic Approach (Critical Care Nursing: A Holistic Approach (Hudak)) Handbook of Biblical Hebrew: An Inductive Approach Based on the Hebrew Text of Esther (An Inductive Approach Based on the Hebrew Text of Esther, 2 Vols. in 1) Oligonucleotide Synthesis: A Practical Approach (The Practical Approach Series) A Graphical Approach to Precalculus with Limits: A Unit Circle Approach, Books a la Carte Edition (5th Edition) HPLC of Macromolecules: A Practical Approach (Practical Approach Series)

[Dmca](#)