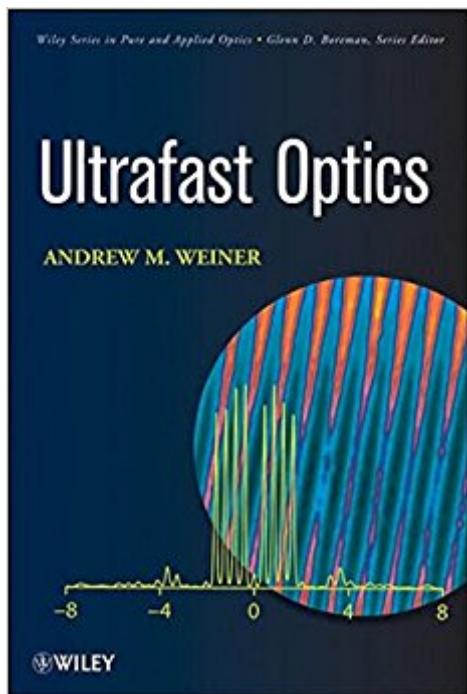


The book was found

Ultrafast Optics



Synopsis

A comprehensive treatment of ultrafast optics This book fills the need for a thorough and detailed account of ultrafast optics. Written by one of the most preeminent researchers in the field, it sheds new light on technology that has already had a revolutionary impact on precision frequency metrology, high-speed electrical testing, biomedical imaging, and in revealing the initial steps in chemical reactions. Ultrafast Optics begins with a summary of ultrashort laser pulses and their practical applications in a range of real-world settings. Next, it reviews important background material, including an introduction to Fourier series and Fourier transforms, and goes on to cover: Principles of mode-locking Ultrafast pulse measurement methods Dispersion and dispersion compensation Ultrafast nonlinear optics: second order Ultrafast nonlinear optics: third order Mode-locking: selected advanced topics Manipulation of ultrashort pulses Ultrafast time-resolved spectroscopy Terahertz time-domain electromagnetics Professor Weiner's expertise and cutting-edge research result in a book that is destined to become a seminal text for engineers, researchers, and graduate students alike. ^

Book Information

Hardcover: 598 pages

Publisher: Wiley; 1 edition (June 15, 2009)

Language: English

ISBN-10: 0471415391

ISBN-13: 978-0471415398

Product Dimensions: 7.2 x 1.5 x 10 inches

Shipping Weight: 2.6 pounds (View shipping rates and policies)

Average Customer Review: 5.0 out of 5 stars 2 customer reviews

Best Sellers Rank: #705,599 in Books (See Top 100 in Books) #106 in Books > Science & Math > Physics > Light #146 in Books > Science & Math > Physics > Waves & Wave Mechanics #256 in Books > Science & Math > Physics > Optics

Customer Reviews

Ultrafast Optics Andrew M. Weiner Wiley Series in Pure and Applied Optics Glenn D. Boreman, Series Editor

A comprehensive treatment of ultrafast optics This book fills the need for a thorough and detailed account of ultrafast optics. Written by one of the most preeminent researchers in the field, it sheds

new light on technology that has already had a revolutionary impact on precision frequency metrology, high-speed electrical testing, biomedical imaging, and in revealing the initial steps in chemical reactions. Ultrafast Optics begins with a summary of ultrashort laser pulses and their practical applications in a range of real-world settings. Next, it reviews important background material, including an introduction to Fourier series and Fourier transforms, and goes on to cover: Principles of mode-locking Ultrafast pulse measurement methods Dispersion and dispersion compensation Ultrafast nonlinear optics: second order Ultrafast nonlinear optics: third order Mode-locking: selected advanced topics Manipulation of ultrashort pulses Ultrafast time-resolved spectroscopy Terahertz time-domain electromagnetics Professor Weiner's expertise and cutting-edge research result in a book that is destined to become a seminal text for engineers, researchers, and graduate students alike.

This text basically got me through the latter half of graduate school. A great reference, for any students of optics. I found it easier to follow than some of the alternative texts.

This is a really well-written book. All the topics are explained clearly, the notation is consistent, both theoretical and experimental techniques are covered in depth, and are easy to follow. Both physical intuition and mathematical insight are provided throughout the book. I found references to be most excellent and relevant, covering both historic papers on the subjects (that have been cited over 400 times), and newer techniques that have been invented recently. The book also has very helpful sections on how exactly to model certain equations numerically, and the issues with this modeling, sometimes providing step-by-step guidelines (which I was able to follow and model my processes). The author has studied (in the long past) with the most famous ultrafast optics professors, which makes him very competent and capable of writing a book of such an excellent quality. I have had this book for the last two years, and find myself using it every week.

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

Handbook of Optics, Third Edition Volume V: Atmospheric Optics, Modulators, Fiber Optics, X-Ray and Neutron Optics Ultrafast Optics Handbook of Optics, Third Edition Volume IV: Optical Properties of Materials, Nonlinear Optics, Quantum Optics (set) Photonics Rules of Thumb: Optics, Electro-Optics, Fiber Optics and Lasers Last-Minute Optics: A Concise Review of Optics, Refraction, and Contact Lenses Handbook of Optics, Third Edition Volume I: Geometrical and Physical Optics, Polarized Light, Components and Instruments (set) Nonlinear Fiber Optics, Fifth Edition (Optics and Photonics) Handbook of Optics, Third Edition Volume III: Vision and Vision

Optics(set) Molded Optics: Design and Manufacture (Series in Optics and Optoelectronics)
Ultraviolet nanoimprint lithography: Fabrication of ordered nanostructures, integrated optics and electronic devices Geometrical and Visual Optics, Second Edition Geometric, Physical, and Visual Optics, 2e Geometric, Physical, and Visual Optics Optics, Retinoscopy, and Refractometry (Basic Bookshelf for Eyecare Professionals) Geometrical and Visual Optics : A Clinical Introduction Handbook of Visual Optics, Two-Volume Set Clinical Optics and Refraction: A Guide for Optometrists, Contact Lens Opticians and Dispensing Opticians, 1e Seeing the Light: Optics in Nature, Photography, Color, Vision, and Holography Prism and Lens Making, Second Edition: A Textbook for Optical Glassworkers (Series in Optics and Optoelectronics) Modern Classical Physics: Optics, Fluids, Plasmas, Elasticity, Relativity, and Statistical Physics

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)