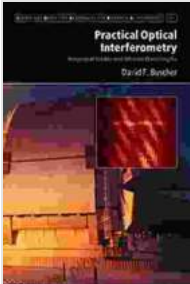


Imaging at Visible and Infrared Wavelengths: Cambridge Observing Handbooks for Research Astronomers



Practical Optical Interferometry: Imaging at Visible and Infrared Wavelengths (Cambridge Observing Handbooks for Research Astronomers Book 11)

by Jen Stevenson

★★★★★ 5 out of 5

Language : English
File size : 8218 KB
Text-to-Speech : Enabled
Screen Reader : Supported
Enhanced typesetting : Enabled
Print length : 287 pages



This Observing Handbook provides guidance for planning and executing imaging observations in optical and near-infrared bands with modern ground-based telescopes. It is intended for astronomers who are familiar with the basics of astronomical imaging, but who may not have experience with the use of large, modern telescopes.

The book is divided into two parts. The first part provides a general overview of the principles of imaging, including the choice of telescope, instrument, and observing strategy. The second part provides more detailed information on specific techniques for imaging in different wavelength bands, including visible light, near-infrared, and mid-infrared.

Part 1: General Overview of Imaging

The first part of the book begins with a discussion of the different types of telescopes that are used for imaging, including refractors, reflectors, and catadioptric telescopes. It then discusses the different types of instruments that are used for imaging, including CCD cameras, photomultipliers, and infrared detectors.

The book then discusses the different factors that need to be considered when choosing an observing strategy, including the target, the desired spatial resolution, the desired spectral resolution, and the observing conditions.

Part 2: Specific Techniques for Imaging in Different Wavelength Bands

The second part of the book provides more detailed information on specific techniques for imaging in different wavelength bands, including visible light, near-infrared, and mid-infrared.

The section on visible light imaging discusses the different types of filters that are used to isolate specific wavelengths of light, and the different techniques that are used to correct for atmospheric effects.

The section on near-infrared imaging discusses the different types of detectors that are used to detect near-infrared light, and the different techniques that are used to reduce noise and improve image quality.

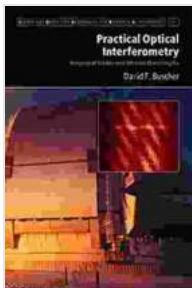
The section on mid-infrared imaging discusses the different types of telescopes and instruments that are used to detect mid-infrared light, and

the different techniques that are used to overcome the challenges of observing in this wavelength band.

This Observing Handbook provides a comprehensive guide to imaging at visible and infrared wavelengths with modern ground-based telescopes. It is an essential resource for astronomers who are planning to use these telescopes for their research.

References

- Carroll, B.W. and Ostlie, D.A. (2007). An to Modern Astrophysics. 2nd Edition. Pearson.
- Oke, J.B. and Gunn, J.E. (1983). The Image Handbook. Cambridge University Press.
- Smith, M.G. (2004). Optics and Photonics: An . Wiley.



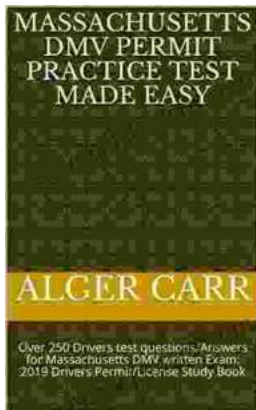
Practical Optical Interferometry: Imaging at Visible and Infrared Wavelengths (Cambridge Observing Handbooks for Research Astronomers Book 11)

by Jen Stevenson

★★★★★ 5 out of 5

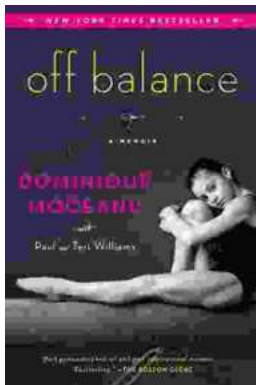
Language : English
File size : 8218 KB
Text-to-Speech : Enabled
Screen Reader : Supported
Enhanced typesetting : Enabled
Print length : 287 pages





Ace Your Massachusetts DMV Written Exam: Over 250 Test Questions and Answers

Are you preparing to take the Massachusetts DMV written exam? If so, you're in luck! This article provides over 250 test questions and answers to help you...



Off Balance: Dominique Moceanu's Inspiring Memoir

A Heartfelt Account of a Champion's Journey and Advocacy In her gripping memoir, "Off Balance," former Olympic gymnast and vocal advocate...