

## **Meade Rcx400 User Guide**

Observer's Guide to Stellar Evolution  
All about Telescopes  
Binocular Astronomy  
So You Want a Meade LX Telescope!  
A User's Guide to the Meade LXD55 and LXD75 Telescopes  
The Cambridge Deep-Sky Album  
Field Guide to the Deep Sky Objects  
Meteoroids  
The Astrophotography Manual  
Planets, Stars and Stellar Systems  
Visual Astronomy in the Suburbs  
Star Ware  
Observing Comets  
Planets, Stars and Stellar Systems  
The Telescope  
Advances in Meteoroid and Meteor Science  
Bang!  
NightWatch  
Deep-Sky Wonders  
The Guide to Amateur Astronomy  
Lunar and Planetary Webcam  
User's Guide  
Lunar Meteoroid Impacts and How to Observe Them  
Exoplanet Observing for Amateurs  
Genetic Enslavement  
Total Solar Eclipses and How to Observe Them  
Cracking the Sky  
Jasmine and Fire  
In Vitro Mutagenesis Protocols  
Splendors of the Universe  
Telescopes and Techniques  
A Practical Guide to Lightcurve Photometry and Analysis  
Quotes for Misanthropes  
The Deep-Sky Observer's Year  
See It with a Small Telescope  
Pattern Asterisms  
Setting-Up a Small Observatory: From Concept to Construction  
An Astronomer's Tale  
Using Commercial Amateur Astronomical Spectrographs  
Misanthrope's Holiday  
Small Astronomical Observatories

## **Observer's Guide to Stellar Evolution**

Have Fun Exploring the Stars with Close-up Views of Space Objects Right from Your Own Backyard  
Take the mystery and struggle out of discovering new

worlds. With hands-on tips, tricks and instructions, this book allows you to unleash the full power of your small telescope and view amazing space objects right from your own backyard, including: • Saturn's Rings • Jupiter's Moons • Apollo 11's Landing Site • Orion Nebula • Andromeda Galaxy • Polaris Double Star • Pegasus Globular Cluster • And much, much more!

### **All about Telescopes**

A history of the telescope includes discussion of such related topics as the dark-adapted human eye, interferometry, adaptive optics, and remote sensing.

### **Binocular Astronomy**

This is the ultimate, easy-to-read guide for "eclipse-chasers" which includes everything an eclipse chaser needs. There are some important eclipses coming up in the years ahead and the technology available to amateur astronomers is improving fast. The book provides "eclipse virgins" with a good feeling for what a trip abroad to an eclipse is like - including a humorous look at all the things that can and have gone wrong. Travel details are included, essential in these days of high-security. And of course the first part of the book contains a wealth of information about solar eclipses and what can be observed only during a total eclipse.

### **So You Want a Meade LX Telescope!**

Stellar evolution - the birth, development and death

of stars - is central to our current understanding of astronomy, but surprisingly the majority of amateur astronomers lack a full understanding of the physics of stars. Current books on the market tend to be highly theoretical and off-putting, in *Observer's Guide to Stellar Evolution*, Mike Inglis brings this subject to life in a unique way. By combining a step-by-step introduction with suggestions for practical observations of stars at different stages in their evolution, amateur astronomers regardless of their current level of knowledge, will find this book fascinating and informative. -Accessible to every amateur astronomer, regardless of background knowledge. -Step-by-step introduction to the theory of stellar evolution. -Includes many examples of stars at different stages in their evolution, that the reader can observe for him/herself. -Mathematics is made accessible by being presented in 'boxes' that readers can skip over if they prefer!

### **A User's Guide to the Meade LXD55 and LXD75 Telescopes**

As Beirut exploded with the bombs and violence of a ruthless civil war in the '80s, a nine-year-old Salma Abdelnour and her family fled Lebanon to start a new life in the States. Ever since then—even as she built a thriving career as a food and travel writer in New York City—Salma has had a hunch that Beirut was still her home. She kept dreaming of moving back—and finally decided to do it. But could she resume her life in Beirut, so many years after her family moved away? Could she, or anyone for that matter, ever really go

home again? *Jasmine and Fire* is Salma's poignant and humorous journey of trying to resettle in Beirut and fumbling through the new realities of life in one of the world's most complex, legendary, ever-vibrant, ever-troubled cities. What's more, in a year of roiling changes around the Middle East and the rise of the Arab Spring, Salma found herself in the midst of the turmoil. As she comes to grips with all the changes in her life—a love left behind in New York and new relationships blossoming in Beirut—Salma takes comfort in some of Lebanon's enduring traditions, particularly its extraordinary food culture. Through the sights, sounds, and flavors of a city full of beauty, tragedy, despair, and hope, Salma slowly begins to reconnect with the place she's longed for her entire life. From the Trade Paperback edition.

### **The Cambridge Deep-Sky Album**

This book offers a comprehensive introductory guide to "choosing and using" a series LXD55 or LXD75 computer-controlled ("goto") telescope, containing a wealth of useful information for both beginners and more advanced practical amateur astronomers. The manufacturer's manuals are not nearly detailed enough to be of real help to beginners. No other book offers advanced techniques for more experienced LXD series users.

### **Field Guide to the Deep Sky Objects**

This is volume 1 of *Planets, Stars and Stellar Systems*, a six-volume compendium of modern astronomical

research, covering subjects of key interest to the main fields of contemporary astronomy. This volume on "Telescopes and Instrumentation" edited by Ian S. McLean presents, after a general Introduction to Telescopes, accessible review chapters on Robotic and Survey Telescopes, Segmented Mirror Telescopes, Honeycomb Mirrors for Large Telescopes, Active Thin-Mirror Telescopes, Optical and Infrared Interferometers, Submillimeter Telescopes, Radio Telescopes, Space Telescopes in the Ultraviolet, Optical, and Infrared (UV/O/IR), CMB Telescopes and Optical Systems, Very- High-Energy Gamma-Ray Telescopes, Instrumentation and Detectors, Silicon-Based Image Sensors, Long-Wavelength Infrared Detectors, and Astronomical Spectrographs. All chapters of the handbook were written by practicing professionals. They include sufficient background material and references to the current literature to allow readers to learn enough about a specialty within astronomy, astrophysics and cosmology to get started on their own practical research projects. In the spirit of the series Stars and Stellar Systems published by Chicago University Press in the 1960s and 1970s, each chapter of Planets, Stars and Stellar Systems can stand on its own as a fundamental review of its respective sub-discipline, and each volume can be used as a textbook or recommended reference work for advanced undergraduate or postgraduate courses. Advanced students and professional astronomers in their roles as both lecturers and researchers will welcome Planets, Stars and Stellar Systems as a comprehensive and pedagogical reference work on astronomy, astrophysics and cosmology.

## **Meteoroids**

A practical guide to astrophotography covers simple camera-on-tripod photography to more sophisticated techniques using telescopes and CCD cameras, and includes photographs taken by amateur astronomers

## **The Astrophotography Manual**

An account of what was achieved in rocket science development, and early space exploration in South Africa in the era of the space- race; and the story of a group of amateur rocket pioneers whose work to expand science and knowledge wa abruptly halted by the authorities in 1962. The author founded and directed the South African Rocket Research Group, a major research foundation in rocket science of its time.

## **Planets, Stars and Stellar Systems**

In the post-genome era, in vitro mutagenesis has emerged as the critically important tool used by molecular biologists in establishing the functions of components of the proteome. In this second edition of In Vitro Mutagenesis Protocols, active researchers with proven track records describe in stepwise fashion their advanced mutagenesis techniques. Each contributor focuses on improvements to conventional site-directed mutagenesis, with chapters being devoted to chemical site-directed mutagenesis; PCR-based mutagenesis and the modifications that allow high-throughput experiments; and mutagenesis based

on gene disruption that is both in vitro- and in situ-based. Additional methods are provided for in vitro gene evolution; for gene disruption based on transposon, recombination, and cassette mutagenesis; and for facilitating the introduction of multiple mutations. Each readily reproducible technique includes detailed step-by-step instructions, tips on pitfalls to avoid, and notes on reagents and suppliers. Time-tested and highly practical, the techniques in *In Vitro Mutagenesis Protocols, Second Edition* offer today's molecular biologists a rich compendium of reliable and powerful techniques with which to illuminate the proteome.

### **Visual Astronomy in the Suburbs**

Since comet Shoemaker-Levy collided with the planet Jupiter with stupendous force in 1994 there has been an upsurge of amateur interest in comets. Most comets are first discovered by amateur astronomers because so there are many amateurs looking for them, and techniques and instruments have improved dramatically in the past few years. This comprehensive book (with an accompanying CD-ROM) is at once a "primer" for comet hunters and a text for advanced amateurs and will thus appeal to a wide audience of amateur astronomers

### **Star Ware**

Tools for amateur astronomers who wish to go beyond CCD imaging and step into 'serious' science. The text offers techniques for gathering, analyzing,

and publishing data, and describes joint projects in which amateurs and students can take part. Readers learn to recognize and avoid common errors in gathering photometry data, with detailed examples for analysis. Includes reviews of available software, with screen shots and useful tips.

### **Observing Comets**

To suit deep-sky astronomers at all levels, this guide can be used to improve observing skills while offering detailed descriptions of each class of object. Includes extensive lists of deep-sky targets and which months provide the best visibility. Also guides the user with broad-ranging background material.

### **Planets, Stars and Stellar Systems**

This book provides a valuable learning tool to facilitate identifying patterns and stars in the sky. Suitable for observers using binoculars and medium size telescopes, this catalog includes star pictures, dot-to-dot outlines of the objects (on a negative photograph for clarity), and an artistic image next to the star patterns. Size, stellar magnitudes, and coordinates are provided, along with north direction, star-hopping instructions and Sky Atlas 2000 references. With the help of this book, the imaginative observer will soon begin to develop a new insight into star patterns, and will start seeing patterns of their own.

### **The Telescope**

The only practical guide to observing truly spectacular astronomical objects from less than perfect locations. The only book to deal in depth with the application of image intensifiers to real-time astronomy. Gives advice on viewing objects, and on making realistic images by drawing or video. Includes extensive catalogs of spectacular objects that can be seen from suburban sites in both hemispheres.

### **Advances in Meteoroid and Meteor Science**

Arditti's approachable work covers the all the details of design, siting and construction - once a basic type has been decided upon. It is written in a way that is equally applicable to the USA and UK (where there are slightly different building regulations) and deals with matters that are basic to building and commissioning any amateur observatory. Uniquely, David Arditti also considers the aesthetics of amateur observatories - fitting them in with family and neighbors, and maybe disguising them as more common garden buildings if necessary. Every amateur astronomer who wants a purpose-built observatory (and let's face it, which one of them doesn't?) will find this book invaluable.

### **Bang!**

Computers and Astronomy Perhaps every generation of astronomers believes that their telescopes are the best that have ever been. They are surely all correct! The great leap of our time is that computer-designed and machined parts have led to more accurately

made comments that give the astronomer ever better views. The manual skills of the craftsman mirror grinder have been transformed into the new-age skills of the programmer and the machine maker. (The new products did not end the work of craftsman telescope makers, though. Many highly skilled amateur/professional opticians continued to produce good-quality mirrors that are still seen today.) Amateur-priced telescopes are now capable of highly accurate tracking and computer control that were once only the province of professionals. This has greatly increased the possibilities of serious astronomy projects for which tailor-made software has been developed. Add a CCD camera to these improved telescopes (see Chap. 3), and you bring a whole new dimension to your astronomy (see Fig. 1. 1). Look Before You Leap! But first, a word of caution. Unless you are already familiar with astronomy and basic telescopes, it is not wise to start spending large amounts of money on a featured telescope. Such an instrument might otherwise be subsequently abandoned due to a perceived overcomplexity coupled with a waning interest.

### **NightWatch**

This rigorously refereed volume is a compilation of articles that summarize the most recent results in meteor, meteoroid and related fields presented at the Meteoroids 2007 conference held at the impressive CosmoCaixa Science Museum in Barcelona, Spain.

### **Deep-Sky Wonders**

The modern aspiring astronomer is faced with a bewildering choice of commercially produced telescopes, including all the designs considered in the preceding chapter. Yet only four decades ago the choice for a small telescope would have been between just a refractor and a Newtonian reflector. That change has come about because of the enormous interest that has grown in astronomy since the start of the space age and with the mind-boggling discoveries of the past 30 or 40 years. Except for some of the very small instruments which are unfortunately often heavily promoted in general mail order catalogues, camera shops and the like, the optical quality of these commercially produced telescopes is almost uniformly excellent. Although one product may be slightly better for some types of observation, or more suited to the personal circumstances of the observer, than another, most of them will provide excellent observing opportunities. The same general praise cannot be applied, however, to the mountings with which many of these telescopes are provided, and those problems are covered in Chapter 6.

## **The Guide to Amateur Astronomy**

### **Lunar and Planetary Webcam User's Guide**

### **Lunar Meteoroid Impacts and How to Observe Them**

This book contains everything an astronomer needs to know about binocular observing. The book takes an in-depth look at the instruments themselves. It has sections on evaluating and buying binoculars and binocular telescopes, their care, mounting, and accessories. In addition there is a selection of fifty fine objects to be seen with 50mm and 100mm binoculars. The advantages of using both eyes for astronomical observing are many and considerable, largely because of the way the human brain processes visual information. This book enables the astronomer to maximize those advantages.

### **Exoplanet Observing for Amateurs**

This title explains how the Universe was born, from the moment when time and space came into existence, to the formation of the first stars, galaxies and planets, and to the evolution of human beings able to contemplate our own origins and ultimate destiny.

### **Genetic Enslavement**

Humans have always been interested in identifying and exposing hypocrisy. Many collections of quotations have been written, and many of the entries are clever treatments of human hypocrisy. The term "human hypocrisy" is redundant, for only humans are hypocritical. Indeed, one theory for the evolution of language suggests that the capacity for speech was driven by the payoffs for misleading others. Since hypocrisy is unique to humans, and

since it appears to be a "human universal" (found in all cultures), I have coined the term "Homo Hypocritus" as a mocking reference to our species. Misanthropes are people who are profoundly disappointed in the shortcomings of human nature. We are unwilling to surrender hope for the day when humans will remake themselves to be worthy of the lofty opinion they have always had for themselves. Since misanthropes wish for human improvement, it is natural for them to be keen on identifying things needing improvement. Many of the quotations within these pages are material for some future project at converting Homo hypocritus to Homo sapiens. This book consists of two parts. The first 80% is a collection of quotes from the literature that capture the essential hypocritical core of human nature, and the remainder of the book consists of the author's attempts at pithy one-liners. Most of the quotations in this book are "politically correct" - which is to say that some are not. The author does not wish to offend, and is confident that almost anyone will enjoy this collection of quotes.

## **Total Solar Eclipses and How to Observe Them**

### **Cracking the Sky**

Every living thing is assembled by its genes. This is a crucial starting point for exploring a fundamental human dilemma. As stated so starkly by Richard Dawkins, a human is "a lumbering machine, created

for the task of safeguarding and propagating the all-important genes within." I would add that since the machine's behavior is driven by brain circuits pre-wired by those genes, sometimes we are prone to doing things which work against our individual best interest in order to advance the cause of the genes. In other words, some of our genes are our enemies ("outlaw genes") because they jeopardize individual well-being as they work to assure themselves genetic immortality. Every thinking person must face the following dilemma: "How can I achieve liberation from genetic pitfalls when my values and thinking are so profoundly influenced by the very same genes that have created those pitfalls?" The more one tries to answer this question the harder it is to imagine that an answer is possible. Nevertheless, this is a challenge that can become irresistibly fascinating. This book is an attempt to bravely explore one of Humanity's most profound existential dilemmas. The fate of a civilization is also affected by the "outlaw genes," especially those responsible for a feeling of discontent with civilization and a vague preference for a simpler society, which I would describe as resembling those found in the human ancestral environment. This book explores how a flawed human nature undermines every civilization, starting a decline and eventual fall. Those of us born during the 20th Century are lucky for having seen the best of times for our civilization, and as a questionable bonus we may now witness from close-up the forces that have condemned every past civilization to ruin.

### **Jasmine and Fire**

This book de-mystifies the jargon of webcams and computer processing, and provides detailed hints and tips for imaging the Sun, Moon and planets with a webcam. It demonstrates how inexpensive tools are revolutionizing imaging in amateur astronomy. Anyone with a modest telescope and a webcam can now obtain jaw-dropping lunar and planetary images to rival those taken with mid-range astronomical CCD cameras costing thousands of dollars. A glance through the images in this book shows just what spectacular results can be achieved by using a webcam with your telescope! Your scientific results will be sought by professional astronomers.

### **In Vitro Mutagenesis Protocols**

"The quality of the deep-sky images is outstanding--a tribute to the various photographers as well as the book's printer. But it's the written word that will make or break a book like this, and Sue's writing is superb [For] an occasional stargazer, a serious observer, or anyone in between, you won't go wrong with Deep-Sky Wonders. This is a great introduction to deep-sky stargazing for novice and experienced amateur astronomers alike." --Mercury, publication of the Astronomical Society of the Pacific  
Sue French writes the popular column "Deep-Sky Wonders" for Sky and Telescope magazine and also teaches deep sky observation. She has earned a loyal following among enthusiasts and is welcomed by beginners for her skill at presenting astronomy in an understandable way. After selling 10,000 copies of Deep-Sky Wonders in hardcover, we expect a good response for this

paperback edition at an accessible price. Deep-Sky Wonders is a collection of 100 of French's best "Deep-Sky Wonders" columns originally published in Sky and Telescope, which has a monthly readership exceeding 100,000. The book is organized by season and subdivided into months for a total of 100 in-depth tours of the deep sky. Each deep sky tour illuminates little-known seasonal wonders that lie off the beaten path. Features include: Full-color photographs and detailed sketches of each deep sky tour Descriptions of double and variable stars, star clusters, nebulae, galaxies and exotics Historical and scientific background of particular interest A tabular listing of the deep-sky sites Color charts showing the position of each target in the night sky An index to all of the deep-sky objects covered. Deep-Sky Wonders also features a variety of challenging objects that encourage observers to test the limits of their equipment and skills. Suitable for beginner and intermediate small-scope astronomers as well as large-scope viewers and astrophotographers, this book will be greeted enthusiastically by all Sky and Telescope readers. It is also an outstanding introduction to deep-sky viewing for novice observers.

### **Splendors of the Universe**

The genesis of modern searches for observable meteoritic phenomena on the Moon is the paper by Lincoln La Paz in Popular Astronomy magazine in 1938. In it he argued that the absence of observed fashes of meteoritic impacts on the Moon might be interpreted to mean that these bodies are destroyed

as luminous meteors in an extremely rarefied lunar atmosphere. The paper suggested the possibility of systematic searches for such possible lunar meteors. With these concepts in mind, I was surprised to note a transient moving bright speck on the Moon on July 10, 1941. It appeared to behave very much as a lunar meteor would - except that the poorly estimated duration would lead to a strongly hyperbolic heliocentric velocity. Thus, the idea of systematic searches for both possible lunar meteors and meteoritic impact flashes was born. It was appreciated that much time might need to be expended to achieve any positive results. Systematic searches were carried out by others and myself chiefly in the years 1945-1965 and became a regular program at the newly founded Association of Lunar and Planetary Observers, or ALPO.

### **Telescopes and Techniques**

A reference guide for stargazers offers star charts and information on equipment, planets, and stellar photography.

### **A Practical Guide to Lightcurve Photometry and Analysis**

This is volume 3 of Planets, Stars and Stellar Systems, a six-volume compendium of modern astronomical research covering subjects of key interest to the main fields of contemporary astronomy. This volume on "Solar and Stellar Planetary Systems" edited by Linda French and Paul Kalas presents accessible review

chapters From Disks to Planets, Dynamical Evolution of Planetary Systems, The Terrestrial Planets, Gas and Ice Giant Interiors, Atmospheres of Jovian Planets, Planetary Magnetospheres, Planetary Rings, An Overview of the Asteroids and Meteorites, Dusty Planetary Systems and Exoplanet Detection Methods. All chapters of the handbook were written by practicing professionals. They include sufficient background material and references to the current literature to allow readers to learn enough about a specialty within astronomy, astrophysics and cosmology to get started on their own practical research projects. In the spirit of the series Stars and Stellar Systems published by Chicago University Press in the 1960s and 1970s, each chapter of Planets, Stars and Stellar Systems can stand on its own as a fundamental review of its respective sub-discipline, and each volume can be used as a textbook or recommended reference work for advanced undergraduate or postgraduate courses. Advanced students and professional astronomers in their roles as both lecturers and researchers will welcome Planets, Stars and Stellar Systems as a comprehensive and pedagogical reference work on astronomy, astrophysics and cosmology.

### **Quotes for Misanthropes**

### **The Deep-Sky Observer's Year**

Photographs of galaxies, nebulae, and star clusters are accompanied by advice on observing objects in

the night sky with a telescope

### **See It with a Small Telescope**

A Bricklayer's Guide to the Galaxy . . . The inspirational memoir of a former brickie who followed his passion for the stars and built his own observatory. Perfect for readers of Robert Macfarlane, Helen Macdonald and James Rebanks - as well as fans of Brian Cox and the BBC's Sky at Night Gary Fildes left school at sixteen, got a trade like most of his mates and was soon married with four kids. His life seemed set. But he had a secret. Something he only practised late at night with a few like-minded friends. Then one day, middle age approaching alarmingly, he acted on his lifelong passion. He finally came out. As an astronomer. Today, Gary is the founder and lead astronomer of Kielder Observatory, one of the top ten stargazing sites in the world, which he also helped to build. Situated in the beautiful forests of Kielder, Northumberland, within Europe's largest protected dark sky park, it offers some of the UK's most spectacular views of stars, planets and galaxies. An Astronomer's Tale is Gary's inspirational story: part memoir, part nature writing, part seasonal guide to the night sky. It is a book brimming with passion; and at a time when the world is captivated by space, it will leave you ready to get out there and explore the wonders of the skies for yourself.

### **Pattern Asterisms**

Deep-sky observing is easily the most popular field for

amateur astronomers. The big problem faced by non-professional observers is what to look at - what is visible at a particular time of year. The Deep-Sky Observers Year is a month-by-month guide to the best objects to view. Objects are given a "star rating" according to how difficult they are to observe or image with a particular size of telescope. The book includes many images produced by amateur astronomers, as well as photographs from NASA, ESA, and ESO. There is background information about the objects, along with lots of useful tips, hints, and resources.

### **Setting-Up a Small Observatory: From Concept to Construction**

In *Small Astronomical Observatories*, Patrick Moore has collected descriptions of amateur and small professional observatories currently in use in Europe and America, showing how many astronomers have built their own observatory, often with effective and sometimes extraordinary improvisations to reduce the cost. There is a photograph of each, along with details of its construction and a foreword written by Patrick Moore. In addition to providing a fascinating study for its own sake, *Small Astronomical Observatories* offers a unique fund of ideas and practical details for anyone who wants to build an amateur or small professional observatory.

### **An Astronomer's Tale**

The *Astrophotography Manual*, Second Edition is for

photographers ready to move beyond standard SLR cameras and editing software to create beautiful images of nebulas, galaxies, clusters, and the stars. Beginning with a brief astronomy primer, this book takes readers through the full astrophotography process, from choosing and using equipment to image capture, calibration, and processing. This combination of technical background and hands-on approach brings the science down to earth, with practical methods to ensure success. This second edition now includes: Over 170 pages of new content within 22 new chapters, with 600 full-color illustrations. Covers a wide range of hardware, including mobile devices, remote control and new technologies. Further insights into leading software, including automation, Sequence Generator Pro and PixInsight Ground-breaking practical chapters on hardware and software as well as alternative astrophotography pursuits

### **Using Commercial Amateur Astronomical Spectrographs**

Featuring new chapters on astro-software and CCD-imaging techniques, a book for amateur astronomers covers astrophotography, telescope construction, planetary observing, comet hunting, variable star recording, and nova discovery, and features both novice and advanced techniques. UP.

### **Misanthrope's Holiday**

This definitive guide provides advanced students and researchers with a detailed yet accessible overview of

all of the central topics of meteor science. Leading figures from the field summarise their active research on themes ranging from the physical composition of meteoroids to the most recent optical and radar observations and ongoing theoretical developments. Crucial practical issues are also considered, such as the risk posed by meteoroids - to spacecraft, and on the ground - and future avenues of research are explored. Taking advantage of the latest dynamical models, insights are offered into meteor flight phenomena and the evolution of meteoroid streams and complexes, as well as describing the in-depth laboratory analysis of recovered material. The rapid rate of progress in twenty-first-century research makes this volume essential reading for anyone who wishes to understand how recent developments broaden our understanding of meteors, meteoroids and their origins.

### **Small Astronomical Observatories**

Amateur astronomers interested in learning more about astronomical spectroscopy now have the guide they need. It provides detailed information about how to get started inexpensively with low-resolution spectroscopy, and then how to move on to more advanced high-resolution spectroscopy. Uniquely, the instructions concentrate very much on the practical aspects of using commercially-available spectroscopes, rather than simply explaining how spectroscopes work. The book includes a clear explanation of the laboratory theory behind astronomical spectrographs, and goes on to

extensively cover the practical application of astronomical spectroscopy in detail. Four popular and reasonably-priced commercially available diffraction grating spectrographs are used as examples. The first is a low-resolution transmission diffraction grating, the Star Analyser spectrograph. The second is an inexpensive fiber optic coupled bench spectrograph that can be used to learn more about spectroscopy. The third is a newcomer, the ALPY 600 spectrograph. The fourth spectrograph considered is at the other end of the market both in performance and cost, the high-resolution Lhires III. While considerably more expensive, this is a popular and excellent scientific instrument, that allows more advanced amateur astronomers to produce scientifically valuable data. With all of these tools in place, the amateur astronomer is well-prepared to forger deeper into the night sky using spectroscopy.

[ROMANCE](#) [ACTION & ADVENTURE](#) [MYSTERY & THRILLER](#) [BIOGRAPHIES & HISTORY](#) [CHILDREN'S](#) [YOUNG ADULT](#) [FANTASY](#) [HISTORICAL FICTION](#) [HORROR](#) [LITERARY FICTION](#) [NON-FICTION](#) [SCIENCE FICTION](#)