

# **Ebook free Real astronomy with small telescopes stepbystep activities for discovery the patrick moore practical astronomy series (PDF)**

Astrophysics is Easy! The Observer's Year Patrick Moore's  
Observer's Year: 366 Nights of the Universe More Small  
Astronomical Observatories The Science And Art Of Using  
Telescopes Transit When Planets Cross the Sun The Observer's  
Year Twenty-Five Astronomical Observations That Changed the  
World Astronomy with a Budget Telescope Small Astronomical  
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Scientific Astrophotography Solar Observing Techniques  
Observing and Measuring Visual Double Stars Amateur Telescope  
Making The Sky at Night Grab 'n' Go Astronomy Rare  
Astronomical Sights and Sounds Atlas of Meteor Showers  
Astrophysics is Easy! Sketching the Moon

# ***Astrophysics is Easy!***

2007-07-14

astrophysics is often with some justification regarded as incomprehensible without at least degree level mathematics consequently many amateur astronomers skip the math and miss out on the fascinating fundamentals of the subject in astrophysics is easy mike inglis takes a quantitative approach to astrophysics that cuts through the incomprehensible mathematics and explains the basics of astrophysics in accessible terms the reader can view objects under discussion with commercial amateur equipment

## **The Observer's Year**

2006-03-30

for this new edition the text has been brought fully up to date and the period covered is from 2005 to 2010 inevitably this has meant that large sections of the book have been completely rewritten much has happened since the first edition was published in 1998 patrick moore december 2004 v 00 oy2e pre i xvi qxd 14 2 05 2 03 pm page vii contents preface v introduction ix phases of the moon 2005 2010 xii january 1 february 39 march 67 april 97 may 127 june 155 july 181 august 209 september 237 october 265 november 295 december 325 appendix a the 88 constellations 351 appendix b glossary 353 appendix c the greek alphabet 363 index 365 vii 00 oy2e pre i xvi qxd 14 2 05 2 03 pm page ix introduction it was once said that the night sky always looks much the same in fact nothing could be further from the truth there are 365 days in each year 366 in a leap year and from an astronomical point of view no two are alike

## **Patrick Moore's Observer's Year: 366 Nights of the Universe**

2015-09-03

observers no longer need to wonder what they will turn their attention to each night of the year with this updated text of a beloved favorite from sir patrick moore his night by night account of the stars is the best possible guide an observer could ask for and now includes the latest data for the years 2015 2020 preserving and extending sir patrick moore's legacy this new edition of his classic text makes it easy to see why

sir patrick moore was such a helpful guide to generations of budding astronomers professional and amateur alike for every night of the year patrick gives the reader details of interesting objects that can be seen from earth it is a book for people with a wide interest in practical astronomy those who may not have specialized in a specific area of astronomy and wish to expand their knowledge in all areas moore updated his book in a second edition in 2005 giving astronomical events through 2010 but a more current version has been desperately lacking this third edition includes sir patrick s original text but revises its time sensitive material and adds all of the points of interest that change from year to year such as eclipses occultations planetary positions and so on sir patrick moore left behind an enormous legacy including the world s longest running television series with the same original presenter the bbc s the sky at night and more than 70 written works his influence on the world of amateur astronomy was phenomenal and his knowledge and passion led many to take up observing as a life long hobby this book the observer s year 366 nights of the universe was he said one of his personal favorites it now features a tribute to patrick moore s legacy as well as including what has changed in astronomy since the previous edition ten years ago

## **More Small Astronomical Observatories**

2012-12-06

this entertaining text details the methods and techniques employed by non professional astronomers from all over the world providing a wonderful resource for anyone wishing to build a small observatory of almost any kind its a fun read too almost every amateur astronomer dreams of having a fixed observatory this provides ideas and constructional details ideas from around the world written for a broad audience including non astronomers

## **The Science And Art Of Using Telescopes**

2009

although transits of planets across the sun are rare only mercury and venus orbit the sun closer than us and so can transit the suns disc amateur astronomers can observe record and image other kinds of transits that are much more frequent this book first tells the fascinating story of the early scientific expeditions to observe transits it then explains how to observe transits of all sorts even transits of

aircraft as they fly between the observer and the sun

## **Transit When Planets Cross the Sun**

2012-12-06

it was once said that the night sky always looks much the same in fact nothing could be further from the truth there are 365 days in each year 366 in a leap year and from an astronomical point of view no two are alike what i aim to do in this book is to go through a complete year and point out some special items of interest for each night it may be a double star a variable star or a nebula it may be a planet or even the moon in some particular aspect there is plenty of variety anyone unfamiliar with astronomical terms should consult the glossary at the end of this book let it be said at once that you do not need a large and expensive telescope a surprising amount can be seen with the naked eye and binoculars give increased range indeed it is probably fair to say that good binoculars are ideal for the beginner and are far better than very small telescopes telescopes are of two types refractors and reflectors a refractor collects its light by means of a glass lens known as an object glass of the light passes down the telescope tube and is brought to focus where an image is formed and is then magnified by a second lens termed an eyepiece

## ***The Observer's Year***

2013-06-29

twenty five astronomical observations that changed the world takes twenty five journeys through space back in time and into human history we begin with the simplest sight of the tycho crater on the moon through a repeat of galileo's observations of jupiter's moons and then move out towards the nebulae stars and galaxies the astronomical observations repeat the original groundbreaking discoveries that have changed our understanding of science and ourselves this title contains graded observing challenges from the straightforward to the more difficult in chapter order it offers clear observing tips and lots of practical help presuming no prior in depth knowledge of equipment binoculars and or a small astronomical telescope are all that is required for most of the observations secondly it explores for each observation the science of what is seen adding to the knowledge and enjoyment of amateur astronomers and offering lots of reading for the cloudy nights when there is not a star in view

thirdly the book puts the amateur astronomers observations into a wider perspective twenty five astronomical observations that changed the world makes the observer part of that great story of discovery each chapter each observing challenge shows how to observe and then how to look with understanding the projects begin with practicalities where the object is how best is it observed and with what appropriate equipment usually a small to medium aperture amateur telescope binoculars even the naked eye twenty five astronomical observations that changed the world guides even the inexperienced amateur astronomer beginners can use the book around a variety of night sky objects and reminds the more experienced how they can best be seen these practical observations put us in contact with all the history and culture surrounding them through scientific speculation and literature to those first fuzzy images made in 1959 by the russian space probe luna 3

## **Twenty-Five Astronomical Observations That Changed the World**

2013-06-28

astronomy with a budget telescope 2nd edition is a complete introduction to buying and using a low cost amateur astronomical telescope it provides essential hints and tips about what to look for when buying on a budget the best are now excellent value but they all lack an astronomer s advice about setting them up and using them astronomy with a budget telescope was first published in 2003 since then technology has moved on substantially the main factors are first the availability of fairly inexpensive computer controlled go to telescopes which after setting up can automatically locate any celestial objects with reasonable accuracy second digital cameras have now almost completely displaced wet film cameras and some of them are particularly well suited to astronomical use third prices are down and quality is up this new edition is revised and extended to include using a low cost go to telescope there are various pitfalls to be avoided and how this class of instrument can make amateur astronomy more accessible to those with limited time at their disposal it also discusses the new breed of mid range digital cameras that include powerful on board processing and image enhancement software that used to be available only to people with advanced astronomical ccd cameras finally there are detailed reviews and test reports on some of the budget telescopes that are available on main street and by mail order

## **Astronomy with a Budget Telescope**

2012-03-01

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

## **Small Astronomical Observatories**

2012-12-06

patrick moore s practical astronomy series the observer s year second edition there are 365 nights in every year 366 in a leap year and from an amateur astronomer s point of view no two are alike and that is why sir patrick moore the world s most widely known and respected tv broadcaster and writer on astronomy has produced this unique book to highlight special objects of interest on each and every night of the year using easy to follow star maps he talks about the science and history of stars double stars galaxies nebulae the moon planets constellations and even asteroids this second edition has been fully updated for astronomical events through until the year 2010 what they said about the first edition new scientist beautifully written and bubbles with enthusiasm astronomy space well patrick moore has done it again what an excellent book this is

## ***The Observer's Year***

2005

this celebrity editor has brought together noted professional and amateur astronomers to submit chapters on their particular field of expertise each describing how to observe a different class of object the whole range of possibilities within reach of a small astronomical telescope is covered from the moon to deep space the book also shows how to gain the most enjoyment from a telescope as well as its use for

formal scientific observations since astronomy is one of the few remaining areas of science where useful work can be carried out by non professionals the ideal companion to the modern amateur astronomer

## **The Observational Amateur Astronomer**

2012-12-06

this book is based around the author s beautiful and sometimes awe inspiring color images and mosaics of deep sky objects the book describes how similar hubble class images can be created by amateur astronomers in their back garden using commercially available telescopes and ccd cameras subsequent processing and image enhancement in the electronic darkroom is covered in detail as well a range of telescopes and equipment is considered from the author s 11 inch with hyperstar camera down to more affordable instruments appendices provide links to free software not available from a single source and are themselves an invaluable resource

## **Making Beautiful Deep-Sky Images**

2016-10-26

this book contains everything the amateur astronomer needs to know about eclipses including what to look for when and how to observe what equipment is needed and even how to mount an eclipse expedition

## **The Sun in Eclipse**

2012-12-06

observers no longer need to wonder what they will turn their attention to each night of the year with this updated text of a beloved favorite from sir partick moore his night by night account of the stars is the best possible guide an observer could ask for and now includes the latest data for the years 2015 2020 preserving and extending sir patrick moore s legacy this new edition of his classic text makes it easy to see why sir patrick moore was such a helpful guide to generations of budding astronomers professional and amateur alike for every night of the year patrick gives the reader details of interesting objects that can be seen from earth it is a book for people with a wide interest in practical astronomy those who may not have specialized in a specific area of astronomy

and wish to expand their knowledge in all areas this third edition includes sir patrick s original text but revises its time sensitive material and adds all of the points of interest that change from year to year such as eclipses occultations planetary positions and so on sir patrick moore left behind an enormous legacy including the world s longest running television series with the same original presenter the bbc s the sky at night and more than 70 written works his influence on the world of amateur astronomy was phenomenal and his knowledge and passion led many to take up observing as a life long hobby this book the observer s year 366 nights of the universe w as he said one of his personal favorites it now features a tribute to patrick moore s legacy as well as including what has changed in astronomy since the previous edition ten years ago

## ***Patrick Moore's Observer's Year: 366 Nights of the Universe***

2015

amateur astronomy has changed beyond recognition in less than two decades the reason is of course technology affordable high quality telescopes computer controlled go to mountings autoguiders ccd cameras video and as always computers and the internet are just a few of the advances that have revolutionized astronomy for the twenty first century martin mobberley first looks at the basics before going into an in depth study of what s available commercially he then moves on to the revolutionary possibilities that are open to amateurs from imaging through spectroscopy and photometry to patrolling for near earth objects the search for comets and asteroids that may come close to or even hit the earth the new amateur astronomer is a road map of the new astronomy equally suitable for newcomers who want an introduction or old hands who need to keep abreast of innovations from the reviews this is one of several dozen books in patrick moore s practical astronomy series amid this large family mobberley finds his niche the beginning high tech amateur the book s first half discusses equipment computer driven telescopes ccd cameras imaging processing software etc this market is changing every bit as rapidly as the computer world so these details will be current for only a year or two the rest of the book offers an overview of scientific projects that serious amateurs are carrying out these days throughout basic formulas and technical terms are provided as needed without formal derivations an appendix with useful references and sites is also included readers will need more than this book



if they are considering a plunge into high tech amateur astronomy but it certainly will whet their appetites mobberley s most valuable advice will save the book s owner many times its cover price buy a quality telescope from a reputable dealer and install it in a simple shelter so it can be used with as little set up time as possible a poor purchase choice and the hassle of setting up are why most fancy telescopes gather dust in their owners dens summing up highly recommended general readers lower and upper division undergraduates t d oswalt choice march 2005

## ***The New Amateur Astronomer***

2012-12-06

this book contains everything an amateur astronomer needs to know to begin observing whilst going relatively deeply into the subject for those who are already involved covers a very wide range of available equipment from simple diy spectroscopes to the most expensive commercially made instruments describes basic principles so that the reader understands how to analyse the spectra he she sees or records contributions by leading amateurs astronomers from the usa and europe

## **Practical Amateur Spectroscopy**

2013-11-11

this is the largest and most comprehensive atlas of the universe ever created for amateur astronomers with finder charts of unprecedented detail in both normal and mirror image views and an extensive list of 14 000 objects it provides a detailed observing guide for almost any practical amateur astronomer up to the most advanced spanning some 3 000 pages this is a project that is possible only on cd rom the cd r pages are extensively indexed and referenced for quick location of objects the accompanying book gives an introduction to the atlas showcases the maps describes the cd r content and organization and includes various appendices

## **The Complete CD Guide to the Universe**

2007-09-06

the internet contains so much information and data for astronomers that just finding what you want is a daunting

task and downloading can take hours of computer and telephone time

## **Software and Data for Practical Astronomers**

2012-12-06

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

## **Pattern Asterisms**

2007-04-22

an easy to read guide to navigating around the sky using a small telescope covering all the basic topics telescopes optics positions and motion observing and instruments telescopes and techniques has been designed as an introduction for anyone wanting a firm grounding in the essentials of astronomy what distinguishes this book from other popular works on astronomy is its impeccable scientific background it has been developed from the author s many years of experience in teaching undergraduates

## **Telescopes and Techniques**

2012-12-06

many lights and other objects in the sky go unrecognised or at least are little understood by those observing them such things range from the commonplace like rainbows and meteors to the distinctly unusual like the green flash and ball lightning and there is still a residuum of objects that remain unidentified by the watcher classed generally as ufos a description which today has connotations of the mysterious even of extraterrestrial visitors the first part of this book is an identification guide very much like the plant

identifier sections found in a good gardening or botany book it allows quick and structured identification of known aerial phenomena whether at night or during the day the objects thus found are referenced to the second part of the book the second part gives a full description physical explanation and where relevant notes on observing and photographing the various phenomena some will need optical aids such as binoculars or telescopes but the main thrust of the book is identification and explanation rather than imaging the final chapter approaches ufos from a scientific standpoint particularly the way in which human perception and often preconception affects the outcome it does however finish with a short section on extraterrestrial ufos emphasising the burden of proof aspect and touching on the scientific theories of life on other worlds and the improbability of visitors

## **Lights in the Sky**

2007-11-07

digital electronic imaging devices allow the wonders of the universe to be seen in detail never before possible from an amateur astronomer s backyard this book clearly examines how to create the best astronomical images possible with a digital camera it reveals the astonishing images that can be obtained with simple equipment the right software and knowledge of how to use it completely jargon free the book describes how to extract results from the raw and dirty original imagery and then transform them into high quality pictures suitable for framing posting online or sharing with friends and colleagues

## **Creating and Enhancing Digital Astro Images**

2007-01-07

here is a one volume guide to just about everything computer related for amateur astronomers today s amateur astronomy is inextricably linked to personal computers computer controlled go to telescopes are inexpensive ccd and webcam imaging make intensive use of the technology for capturing and processing images planetarium software provides information and an easy interface for telescopes the internet offers links to other astronomers information and software the list goes on and on find out here how to choose the best planetarium program are

commercial versions really better than freeware learn how to optimise a go to telescope or connect it to a lap top discover how to choose the best webcam and use it with your telescope create a mosaic of the moon or high resolution images of the planets astronomy with a home computer is designed for every amateur astronomer who owns a home computer whether it is running microsoft windows mac o s or linux it doesn t matter what kind of telescope you own either a small refractor is just as useful as a big go to sct for most of the projects in this book

## **Astronomy with a Home Computer**

2006-03-30

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

## **Telescopes and Techniques**

2012-12-06

binoculars have for many long been regarded as an entry level observational tool and relatively few have used them as a serious observing instrument this is changing many people appreciate the relative comfort of two eyed observing but those who use binoculars come to realize that they offer more than comfort the view of the stars is more aesthetically pleasing and therefore binocular observers tend to observe more frequently and for longer periods binocular astronomy 2nd edition extends its coverage of small and medium

binoculars to large and giant i e up to 300mm aperture binoculars and also binoviewers which brings the work into the realm of serious observing instruments additionally it goes far deeper into the varying optical characteristics of binoculars giving newcomers and advanced astronomers the information needed to make informed choices on purchasing a pair it also covers relevant aspects of the physiology of binocular as in both eyes observation the first edition of this title was praised for its suggested objects for observation and especially for the finder charts for each object in this second edition this section is expanded in three ways there are new objects with more information on each object and a re organization of the objects for binoculars for easier selection for readers binocular astronomy 2nd edition puts an emphasis on understanding binoculars and their use the additional content in this second edition reflects the latest developments in technology available testing techniques and practical ideas for binocular use it also responds to the substantially positive reviews of the first edition and is now even better suited to its target readership

## **Binocular Astronomy**

2013-08-15

the beginning astronomical observer passes through a series of stages the initial stage is hugely exciting and gives the beginner a real buzz as he discovers some of the faint fuzzy objects markings on the planets rings around saturn and the craters on the moon but as the novice observer progresses he or she wants to know what more there is than looking at faint fuzzy blobs or indistinct planet markings many jump to the conclusion wrongly that they need to spend lots of money on expensive equipment to progress from casual stargazer to amateur astronomer has been written specifically to address this group of budding stargazers astronomy is much more than a quick sightseeing tour patient observers who can develop their skills will start to appreciate what they are seeing and will know exactly what to look out for on any particular night and equally important they will learn what not to expect to see from casual stargazer to amateur astronomer is for those who want to develop observing skills beyond mere sightseeing and learn some of the techniques used to carry out enjoyable and scientifically useful observations it will also direct readers to make informed choices about what can be seen and when this book is for anyone keen to develop their skills as an amateur astronomer

## **From Casual Stargazer to Amateur Astronomer**

2013-10-16

astrophysics is often with some justification regarded as incomprehensible without the use of higher mathematics consequently many amateur astronomers miss out on some of the most fascinating aspects of the subject astrophysics is easy cuts through the difficult mathematics and explains the basics of astrophysics in accessible terms using nothing more than plain arithmetic and simple examples the workings of the universe are outlined in a straightforward yet detailed and easy to grasp manner the original edition of the book was written over eight years ago and in that time advances in observational astronomy have led to new and significant changes to the theories of astrophysics the new theories will be reflected in both the new and expanded chapters a unique aspect of this book is that for each topic under discussion an observing list is included so that observers can actually see for themselves the concepts presented stars of the spectral sequence nebulae galaxies even black holes the observing list has been revised and brought up to date in the second edition

## **Astrophysics Is Easy!**

2014-12-04

this is the first non technical book on spectroscopy written specifically for practical amateur astronomers it includes all the science necessary for a qualitative understanding of stellar spectra but avoids a mathematical treatment which would alienate many of its intended readers any amateur astronomer who carries out observational spectroscopy and who wants a non technical account of the physical processes which determine the intensity and profile morphology of lines in stellar spectra will find this is the only book written specially for them it is an ideal companion to existing books on observational amateur astronomical spectroscopy

## ***Astronomy of the Milky Way: The observer's guide to the northern Milky***

## **Way**

2004

scientific astrophotography is intended for those amateur astronomers who are looking for new challenges once they have mastered visual observing and the basic imaging of various astronomical objects it will also be a useful reference for scientifically inclined observers who want to learn the fundamentals of astrophotography with a firm emphasis on the discipline of scientific imaging this book is not about making beautiful astronomical images it is about recording astronomical images that are scientifically rigorous and from which accurate data can be extracted this book is unique in that it gives readers the skills necessary for obtaining excellent images for scientific purposes in a concise and procedurally oriented manner this not only gets the reader used to a disciplined approach to imaging to maximize quality but also to maximize the success and minimize the frustration inherent in the pursuit of astrophotography the knowledge and skills imparted to the reader of this handbook also provide an excellent basis for beautiful picture astrophotography there is a wealth of information in this book a distillation of ideas and data presented by a diverse set of sources and based on the most recent techniques equipment and data available to the amateur astronomer there are also numerous practical exercises scientific astrophotography is perfect for any amateur astronomer who wants to go beyond just astrophotography and actually contribute to the science of astronomy

## **Spectroscopy: The Key to the Stars**

2007-01-16

astronomers and students interested in studying the sun require a thorough understanding of the proper techniques and equipment safety precautions are paramount as the intensity of the heat and light can instantly blind the untrained observer in this book kitchin provides all the information needed for safe observation as well as novel techniques that will make solar observation a rewarding experience

## **Scientific Astrophotography**

2012-11-09

the second edition of observing and measuring visual double stars 2004 is the definitive book for those who are serious about this fascinating aspect of astronomy it deals with equipment you can start modestly with commercial or even home made instruments observing methods using binoculars upwards to advanced instrumentation and techniques including speckle interferometry the astronomy of double stars including orbital calculation is given its own section this second edition of this popular book contains a significant amount of completely new material inspired by the work done by observers particularly in the usa since the first edition was published this includes the use of the internet to carry out astrometry precise astronomical measurement using existing survey plates and films the new edition contains an excellent guide to sketching double stars a topic not previously covered in addition there is information about how to image double stars of unequal brightness always a difficult matter but now somewhat easier because of advances in hardware and image processing software nearly all of the chapters and tables have been updated the cd rom that accompanied the first edition of observing and measuring visual double stars is replaced by access to the springer extras web site the extra information includes the complete washington double star and tycho 2 catalogs there is an extensive database of astrometric double and multiple star formation including positions orbits separations and magnitudes and a software suite that implements many of the calculations and equations featured in the book

## **Solar Observing Techniques**

2012-12-06

this book provides an introduction to the design of a variety of telescopes mounts and drives suitable for the home constructor projects include instruments that range from a shoestring budget to specialist devices that are not commercially available the skill level of each project is indicated and advice is provided as to what is sensible to construct given what is commercially available hints and tips are included as well as listings of reputable mail order sources of materials and components

## **Observing and Measuring Visual Double Stars**

2012-09-06



when i became the producer of the sky at night in 2002 i was given some friendly advice it s a quiet little programme not much happens in astronomy how wrong they were it s been a hectic and enthralling time ever since with missions arriving at distant planets new discoveries in our universe and leaps in technology which mean amateurs can take pictures as good as the hubble space telescope what a privilege it is to work on a programme with such a huge heritage i am constantly amazed looking back at the flotilla of excellent programmes which have gone out over the past five decades the sky at night has always been at the sharp end of science broadcasting whether it s showing the first view from the far side of the moon or pictures of a new comet which has swept into our sky viewers can depend on sir patrick to tell them the latest news and explain what it means it s an outstanding achievement and sir patrick still holds the world record for being the same presenter on the longest running tv programme our guests love coming down to farthings sir patrick s home for them me ing him is like meeting their astronomical hero over the past five decades the sky at night has managed to talk to the space scientists and astronomers making the landmark discoveries no matter how busy they are they make room for sir patrick

## **Amateur Telescope Making**

2012-12-06

like everyone else most amateur astronomers live busy lives after a long day or work or looking after young children the last thing you want as an observer is to have to lug out a large telescope and spend an hour getting it ready before it can be used maybe you are going on vacation somewhere in the countryside where there are sure to be dark skies but you don t necessarily want astronomy to dominate the trip or suppose you are not quite committed to owning a large telescope but curious enough to see what a smaller portable setup can accomplish these are times when a small grab n go telescope or even a pair of binoculars is the ideal instrument and this book can guide you in choosing and best utilizing that equipment what makes a telescope fall into the grab n go category that s easy speed of setting up ease of use and above all portability in part i of this book we survey the various types of equipment including accessories and mounts that are available and what it is best for what kind of viewing part ii is about using your grab n go telescope to visit a wealth and wide variety of objects there are chapters on solar lunar and planetary observing as well as

descriptions of many deep sky objects including double and variable stars planetary emission and reflection nebulae open and globular clusters and distant galaxies this ambitious text is dedicated to those who love to or because of their limited time must observe the sky at a moment s notice whether from the comfort of a backyard or while on business or vacation far from home everything you need to know is here so get started

## **The Sky at Night**

2010-11-01

the universe contains many unusual sights and sounds most of which are either very difficult to witness or simply go unnoticed with the right tools time and location some of the often talked about but seldom seen and heard gems in our skies can finally be observed this book introduces readers to the rare and ephemeral happenings above our heads it offers a crash course in astronomical history detailing the observations assumptions and inventions of different cultures over time as they turned their studies to the stars using this as a baseline to redefine truly rare occurrences jonathan powell then provides modern day astronomers at all levels with pointers for what they can witness and when from phenomena as old and far off as a supernova witnessed a thousand years ago and as recent and nearby as sputnik s famous beeping this book covers everything that one must know to see hear and appreciate the astronomical events happening around us

## ***Grab 'n' Go Astronomy***

2014-05-14

this atlas contains everything you need to know about meteor showers and how to observe them it begins with the science behind these celestial fireworks then equips you with all the practical knowledge you ll need to make the most of these wonderful astronomical events the book is rich with illustrations graphs and resources to assist your hobby in addition it includes downloadable radiant charts report sheets radiant altitude data plotting charts and more to help you locate each shower record its activity and plot individual meteors during your nights of observation intended for amateurs of all levels and requiring no special equipment this accessible atlas of meteor showers will hone your skills and keep you engaged throughout the year no matter where you

are in the world

## **Rare Astronomical Sights and Sounds**

2018

for anyone artistically inclined observing the moon and attempting to sketch or paint it can easily become a passion the moon presents a broad array of tone texture and form capturing this in a painting or sketch at the eyepiece of a telescope or even with binoculars develops observational skills leaves a record of the observation and can also be a delightful and rewarding pastime however the choice of media available is extensive acrylic paint oils pen charcoal etc and even computer art programs and there is no existing text that fully explains all lunar sketching and painting techniques in each respective medium this beautiful and graphically rich book fulfills this requirement it presents detailed step by step instructions in the form of illustrated tutorials for every major medium employed to represent the moon it also provides practical advice on how to sketch outdoors at night not ideal conditions for an artist this is easily the most extensive book on the subject of lunar art for amateur astronomers particularly those observing through a telescope the diverse features of the lunar surface will attract and entice readers to review the number of different media presented exciting and inspiring them with the possibilities of learning to depict all of the fascinating aspects of earth s very own satellite

## ***Atlas of Meteor Showers***

2022-02-18

## **Astrophysics is Easy!**

2007

## **Sketching the Moon**

2011-12-11

## the young man and the sea (2023)

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