

WESSEX ASTRONOMY SOCIETY

Catalogue with Synopsis

Astronomical Bodies

25	Impact Earth	Austen Atkinson	As more asteroids enter our solar system, our chances of a collision increase by the day. This work examines the impact phenomenon describing the importance of "Deathrock" collisions in the Earth's history, the potential dangers and alleged cover-ups of near misses.
85	Mars	Heather Couper	The authors look at how our knowledge of our nearest planetary neighbour - Mars - has grown, and assess the role it might play in our futures. They look at the old myths associated with Mars, the fears of Martian invasions, and take the story up to date to show what we now know about the planet in the aftermath of the 1996 meteorite that may provide evidence for life and from the discoveries of the recent probes. They also assess whether Mars could form a crucial stopping point for further exploration.
140	The Universe From Your Backyard	David J. Eicher	Describes more than six hundred multiple stars, star clusters, nebulae, galaxies, and quasars found in each of forty-six constellations
3	Total Eclipses	Pierre Guillermier; Serge Koutchmy	Lively and easy to understand, Total Eclipses presents the myths and legends associated with solar and lunar eclipses through the ages, the mechanisms governing these events, their beauty, and the wealth of information gleaned from them by astronomers and astrophysicists. "Gives a wide variety of information on observing eclipses for the novice as well as on the value of eclipses to professionals...any reader can find information at an interesting and appropriate level and can be sure that he is being guided knowledgeably." -NATURE.
147	Exoplanets	C. R. Kitchin	Since 1992 there has been an explosion in the discovery of planets orbiting stars other than the Sun. There are now around 600 alien planets that we know about and that number is likely to break through the 1,000 'barrier' within a couple of years. The recent launch of the Kepler space telescope specifically to look for new worlds opens the prospect of hundreds, maybe thousands, of further exoplanets being found. Many of these planets orbits stars that are not too different from the Sun, but they are so close in to their stars that their surfaces could be flooded with seas of molten lead – or even molten iron. Others orbit so far from their stars that they might as well be alone in interstellar space. A planet closely similar to the Earth has yet to be detected, but that (to us) epoch-making discovery is just a matter of time. Could these alien worlds could provide alternative homes for humankind, new supplies of mineral resources and might they might already be homes to alien life? Exoplanets: Finding, Exploring, and Understanding Alien Worlds takes a look at these questions - examining what such planets are like, where they are, how we find them and whether we might ever be able to visit them. It is written for the non-specialist but also provides a comprehensive, accurate and balanced summary useful to researchers in the subject. Above all this book explores the excitement of how a new branch of science is born, develops and in less than two decades starts to become a mature part of our knowledge of the universe.

Astrophysics & General Science

16	Cosmology Revealed	Anthony Fairall	This book presents a clear explanation of the nature of the universe, including a special color feature incorporated in the book that offers three-dimensional views of the surrounding universe to ever greater depths. It assumes no prior knowledge of astronomy or cosmology and will attract general readers and beginning amateur astronomers. It provides much more on large-scale structures than other popular-level cosmology books. The mix of cosmology, large scale structures, anthropic principle, and perspectives on the universe is unique.
93	ORIGINS	SIMON GOODWIN JOHN GRIBBIN	During the late 1920s Edwin Hubble postulated that the universe is expanding. Gathered together in this study are photographs that concur with the theory, whilst the authors explain for the layman the awesome implications of the Big Bang and our origin'

Astrophysics & General Science

- 114 Illustrated Brief History of Time Stephen Hawking This is Stephen Hawking's updated, expanded and illustrated edition of his celebrated work which includes the most recent developments in the field, many of which were forecast by him. At the same time, he explains his complex theories through a fresh visual dimension. Over one hundred and fifty stunning colour illustrations have been specially commissioned for this purpose to help the reader understand what have become popular mythic images of our century, but which nonetheless remain difficult, abstract ideas to grasp. It includes a new introduction written specially for this edition.
- 103 The Nature of Space and Time Stephen W. Hawking; Roger Penrose Who doesn't love a good argument? When physics heavyweights Stephen W. Hawking and Roger Penrose delivered three sets of back-and-forth lectures capped by a final debate at Cambridge's Isaac Newton Institute, the course of modern cosmological thinking was at stake. As it happens, The Nature of Space and Time, which collects these remarks, suggests that little has changed from the days when Einstein challenged Bohr by refusing to believe that God plays dice. The math is more abstruse, the arguments more refined, but the argument still hinges on whether our physical theories should be expected to model reality or merely predict measurements.
- Hawking, clever and playful as usual, sides with Bohr and the Copenhagen interpretation and builds a strong case for quantum gravity. Penrose, inevitably a bit dry in comparison, shares Einstein's horror at such intuition-blasting thought experiments as Schrödinger's long-suffering cat--and scores just as many points for general relativity. The math is tough going for lay readers, but a few leaps of faith will carry them through to some deeply thought-provoking rhetoric. Though no questions find final answers in The Nature of Space and Time, the quality of discourse should be enough to satisfy the scientifically curious. --Rob Lightner.
- 162 The Grand Design Stephen Hawking; Leonard Mlodinow #1 NEW YORK TIMES BESTSELLER
- When and how did the universe begin? Why are we here? What is the nature of reality? Is the apparent "grand design" of our universe evidence of a benevolent creator who set things in motion – or does science offer another explanation? In this startling and lavishly illustrated book, Stephen Hawking and Leonard Mlodinow present the most recent scientific thinking about these and other abiding mysteries of the universe, in nontechnical language marked by brilliance and simplicity.
- According to quantum theory, the cosmos does not have just a single existence or history. The authors explain that we ourselves are the product of quantum fluctuations in the early universe, and show how quantum theory predicts the "multiverse" – the idea that ours is just one of many universes that appeared spontaneously out of nothing, each with different laws of nature. They conclude with a riveting assessment of M-theory, an explanation of the laws governing our universe that is currently the only viable candidate for a "theory of everything": the unified theory that Einstein was looking for, which, if confirmed, would represent the ultimate triumph of human reason.
- 94 Bang! Brian May; Lintott; Moore Rock legend and experienced amateur astronomer Brian May joins the legendary expert Sir Patrick Moore to tell the story of the Universe from the moment time and space came into existence at the Big Bang, through to the infinite future and the ultimate fate that awaits us. Many of the pictures of the Universe obtained by instruments such as the Hubble Space Telescope or the Very Large Telescope in Chile are beautiful enough to be considered works of art in their own right. This book presents them in context, and uses extraordinary new artworks to explain the mind-blowing theories from the cutting edge of astronomy in a way that everyone can understand.

Astrophysics & General Science

- 139 The Great Universe Patrick Moore
- 120 Dark Side of the Universe Iain Nicolson; Brian Smallwood; Jamie Symonds
- A lucid essay on the cosmos -- past, present and future -- accompanied by clear diagrams, computer graphics and luminous telescopic photos... conveys the excitement of scientists tackling the largest problem yet uncovered. --Wall Street Journal
- Full of lavish illustrations in beautiful colour -- though not of course of dark matter and dark energy -- it is a first-class overview for the non-specialist, with enough meaty detail for scientists too. --New Scientist
- For anyone who was intrigued by Bang!, Dark Side of the Universe is the perfect way to delve deeper into 21st century astronomy. --Brian May (Queen)
- I particularly enjoyed how Nicolson explores topics that take a back seat in the main stream media. --Monica Bobra, Sky and Telescope
- a broad, clear and precise overview of our current understanding of dark matter and dark energy --. It is a challenge to try to make these apparently obscure concepts familiar to any motivated reader without a scientific background. But the author, Iain Nicolson, has been entirely successful in his enterprise. With a pleasant balance between text and colourful illustrations, he guides the reader through a fascinating, invisible and mysterious world that manifests its presence by shaping galaxies and the universe itself. --CERN Courier
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- 153 How to Destroy the Universe and 34 Other Paul Parsons
- How do you generate a force field? Is time travel possible? Could you survive falling in a black hole? How do you turn lead into gold? Can you live for ever? If you thought physics was all about measuring the temperature of ice in a bucket or trying to fathom what $E=mc^2$ means, think again...How to Destroy the Universe and 34 other really interesting uses of physics demystifies the astonishing world of physics in a series of intriguing, entertaining and often extraordinary scenarios - that explain key physics concepts in plain and simple language. You'll find out how to save the planet from energy shortages by mining the vacuum of empty space, engineer the Earth's climate to reverse the effects of global warming, and fend off killer asteroids just like Bruce Willis and his vest. You'll learn essential survival skills such as how to live through a lightning strike, how to tough it out during an earthquake and how to fall into a black hole without being squashed into spaghetti. And you'll discover some plain old cool stuff like how to turn lead into gold, how to travel to the centre of the Earth, how to crack supposedly unbreakable codes and how to use physics to predict the stock market. So if you want to get to grips with science behind relativity, antigravity and parallel universes, or if you are really more interested in learning how to teleport, travel through time or achieve immortality, this is the perfect introduction to the amazing world of modern physics.
- 143 Bad Astronomy Philip C. Plait
- 3 of 9 pages
- Advance praise for Philip Plait's Bad Astronomy

"Bad Astronomy is just plain good! Philip Plait clears up every misconception on astronomy and space you never knew you suffered from." --Stephen Maran, Author of Astronomy for Dummies and editor of The Astronomy and Astrophysics Encyclopedia

"Thank the cosmos for the bundle of star stuff named Philip Plait, who is the world's leading consumer advocate for quality science in space and on Earth. This important contribution to science will rest firmly on my reference library shelf, ready for easy access the next time an astrologer calls." --Dr. Michael Shermer, Publisher of Skeptic magazine, monthly columnist for Scientific American, and author of The Borderlands of Science

"Philip Plait has given us a readable, erudite, informative, useful, and entertaining book. Bad Astronomy is Good Science. Very good science..." --James "The Amazing" Randi, President, James Randi Educational Foundation, and author of An Encyclopedia of Claims, Frauds, and Hoaxes of the Occult and Supernatural

"Bad Astronomy is a fun read. Plait is wonderfully witty and educational as he debunks the myths, legends, and 'conspiracies that abound in our society. 'The Truth Is Out There' and it's in this book. I loved it!" --Mike Mullane, Space Shuttle astronaut and author of Do Your Ears Pop in Space?

152	Packing for Mars	Mary Roach	Space is devoid of the stuff humans need to live: air, gravity, hot showers, fresh veg, privacy, beer. How much can a person give up? What happens when you can't walk? Is sex any fun? What's it like being with a few people for months at a time? From the space shuttle training toilet to a 17,000 mile-per-hour crash test of NASA's space capsule, Mary Roach takes us on a surreally entertaining trip into the science of life in space.
8	The Tunguska Mystery (Astronomers'	Vladimir Rubtsov; Edward Ashpole	The purpose of the book is a dual one: to detail the nature and results of Tunguska investigations in the former USSR and present-day CIS, and to destroy two long-standing myths still held in the West. The first concerns alleged "final solutions" that have ostensibly been found in Russia or elsewhere. The second concerns the mistaken belief that there has been little or no progress in understanding the nature of the Tunguska phenomenon. All this is treated by the author in a scholarly and responsible manner. Although the book does present certain unusual findings of Russian and Ukrainian scholars, it is important to stress that this is not a sensational book; it is, rather, a serious exposition of the results of rational investigations into a difficult scientific problem. We are demonstrating the true complexity of the problem that is now entering its second century of existence. Simple meteoritic models cannot explain all the characteristics of this complicated event, and therefore certain so-called "unconventional hypotheses" about the nature of the Tunguska explosion are to be considered as well.
113	Cosmos	Carl Sagan	A companion volume to a popular television series and seventy-week New York Times bestseller places fifteen billion years of evolution in an accessible format and is accompanied by more than two hundred photographs.
24	101 Things You Don't Know About Science	James S. Trefil	Predicts the course of future breakthroughs over the whole range of physical sciences. It looks at topics such as time travel, why AIDS cannot be cured, how the world will end and what is the exact weight of one kilogram.

Biographies

101	Fred Hoyle	Simon Mitton	The first astronomer to publicize his subject on radio and television, Sir Fred Hoyle rose to national prominence in the 1950s as a result of his controversial ideas on the origins of the universe. Famous for his work on the thermonuclear reactions inside stars that made possible the beginnings of life, he developed the 'steady state' theory of the universe, soon challenged by the rival 'big bang' theory, which led to a bitter dispute between Hoyle and his rivals - not only fellow scientists but also archaeologists and palaeontologists whose conclusions he had challenged. This is a major scientific biography of one of the greatest, and best-known, scientists of the twentieth century, written in an enjoyable and accessible style.
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Biographies

1	80 Not Out	Patrick Moore	Offering fascinating insight into a man who has significantly raised the profile of astronomy among the public, this autobiography of Patrick Moore spans 80 years of social history with wit and charm. Moore describes his research to map the moon, which began prior to the NASA Apollo missions during his undergraduate years at Cambridge University, and was eventually used by Russia to correlate the first Lunik 3 pictures. Moore also chronicles his work on BBC's The Sky at Night, where he began as the presenter in April 1957 and continues today, the show having landed in the record books as the world's longest-running TV series with the same presenter.
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General Reference Materials

6	Space Data	Neville J Barter	Charts, diagrams, glossary, and an abundance of other data to assist young engineers, or simply interested observers, in understanding better the principles of the solar system and the mechanics of exploring it. Prepared by a leading aerospace technology company as a study aid and public relations tool.
205	Astronomy	Storm Dunlop	
204	Weather	Storm Dunlop	
135	Illustrated Encyclopedia of Astronomy	John Man	A fully illustrated guide to all aspects of astronomy.
146	Patrick Moore's Yearbook of Astronomy	John Mason; Patrick Moore	A special 50th anniversary edition of the one book that no stargazer should be without
136	The Canopus Encyclopedia of Astronomy	Paul Murdin; Margaret Penston	This authoritative and comprehensive volume will be of interest to armchair and backyard astronomers alike. It is an up-to-date work...
107	Norton's 2000.0	Arthur P. Norton	This is considered to be the most famous star atlas in the world - known by generations of amateur astronomers as simply "Nortons". It is designed to be a leading reference handbook for astronomers. The handbook has been revised and redesigned by a team of astronomers, bringing the information fully up-to-date and reflecting new and exciting developments in observational astronomy. The star maps have been re-plotted to a new level of accuracy and legibility for the Standard Epoch of 2000.0, using state-of-the-art computer techniques specially developed for this 18th edition.
202	Deep Sky Observers Year	Privett and Parsons	
72	The Monthly Sky Guide	Ian Ridpath; Wil Tirion	The latest edition of Ian Ridpath and Wil Tirion's popular guide to the night sky is updated for planet positions and forthcoming eclipses up to the end of the year 2007. With one chapter for each month of the year, this is an easy-to-use handbook for anyone wanting to identify constellations, star clusters, nebulae, to plot the movement of planets, or witness solar and lunar eclipses. Most of the features discussed are visible to the naked eye and all can be seen with a small telescope or binoculars. Ian Ridpath has been a full-time writer, broadcaster and lecturer on astronomy and space for more than twenty-five years. He has written and edited more than 40 books, including A Comet Called Haley (Cambridge, 1985). Wil Tirion made his first star map in 1977. It showed stars to the magnitude of 6.5 and was issued as a set of maps by the British Astronomical Association in 1981. He has illustrated numerous books and magazines, including The Cambridge Star Atlas (Cambridge, 2001). Previous Edition Pb (1999): 0-521-66771-2
138	Constellation Guidebook	Antonin Rukl	Text: English (translation) Original Language: Czech.
69	Philip's Complete Guide to Stargazing	Robin Scagell	"Philip's Complete Guide to Stargazing" is an inspiring introduction to observing the night sky, written by Robin Scagell, author of the Philip's bestseller "Stargazing with a Telescope", and Vice President of the Society for Popular Astronomy. Scagell first introduces the wonders of the night sky and explains how and why the sky

General Reference Materials

			changes during the night and through the seasons. He describes the variety of equipment that can be used - binoculars, telescopes and telescope mounts - with information on what to choose, how to set it up and what to expect to see. There also plenty of tips for those who wish to observe with the naked eye. Next he looks in turn at the Moon, the Solar System, stars and deep sky objects. In each section, he describes how to observe your chosen target and what to look for. The text is illustrated with photographs and observational drawings made by talented amateur astronomers, as well as spectacular images returned by spacecraft or taken by large professional telescopes. A month-by-month guide to the constellations is illustrated with maps showing the constellations on view from both northern and southern hemispheres, as well as more detailed maps of individual constellations. The author describes the most interesting objects on view each month, with the help of photographs. The guide is applicable to any year. Also included is a complete set of star charts, presenting the whole sky in a series of maps that show stars down to magnitude 5.5 - all stars visible with the naked eye in semi-rural conditions. These maps are drawn with black stars on a white background, so that observers can pencil their own observations on to the charts. Opposite each map is a 'photo-realistic' image which shows how the same portion of the sky appears to the eye. The book finishes with an illustrated and up-to-date A-Z dictionary of astronomy. This covers the stars, planets and galaxies, cosmology, amateur astronomy and professional observatories, space exploration, famous astronomers, scientific terms, theories and much more, and is illustrated with photographs, artworks and diagrams. It is an invaluable reference source for astronomers of all levels.
124	Atlas of the Constellations	Giles Sparrow	Atlas of the Constellations
203	A Guide to the Stars, Constellations and	TBC	
201	Practical Sky Watching	TBC	

History of Astronomy

155	The Astronomical Scrapbook	Joseph Ashbrook	This collection of 83 articles on the history of astronomy is the harvest of a quarter of a century spent in seeking out intriguing, unusual and half-forgotten events. Joe Ashbrook wrote a column regularly for the monthly magazine Sky and Telescope. Professor Owen Gingerich, of the Harvard-Smithsonian Center for Astrophysics, has helped in the selection of the very best of these timeless vignettes, and he has contributed a foreword to the collection. Each article has been edited, and in some cases modified, to take account of any subsequent discoveries. Articles are grouped into themes covering biography, telescopes, the solar systems, stars and galaxies, and star atlases. Much of the material cannot be found in standard references in the history of astronomy.
96	The Great Copernicus Chase and Other	Owen Gingerich	The Great Copernicus Chase is an anthology of 36 incidents drawn from the history of astronomy. The chapters range from Stonehenge and ancient Egypt, to the Great Comet of 1965, and to Albert Einstein. In this series of articles, arranged roughly chronologically, Professor Gingerich covers all the important periods and developments in astronomy. The book is generously illustrated throughout, and opportunity has been taken to add illustrations to articles that originally had none. The curious reader will learn of the origin of the zodiac, Islamic astronomy, fake astrolabes, the foundation of modern astronomy in the USA, and the discovery of the spiral arms of our Galaxy. Although Professor Gingerich prepared this material primarily for readers interested in the historical background to astronomy, there are many original research discoveries and insights. This is popularization and intellectual history combined. The Copernicus Chase refers to Owen Gingerich's attempt to make a census of all extant copies of De Revolutionibus. Some of the many adventures that have befallen him in this quest feature in the book. The majority of the chapters originally appeared in Sky and Telescope, the monthly astronomy magazine published by Sky Publishing Corporation of Cambridge, Massachusetts.
38	Decoding the Heavens	Josephine Marchant	In 1900, a group of sponge divers blown off course in the Mediterranean discovered an Ancient Greek shipwreck
6	of 9 pages		

History of Astronomy

dating from around 70 BC. Lying unnoticed for months amongst their hard-won haul was what appeared to be a formless lump of corroded rock, which turned out to be the most stunning scientific artefact we have from antiquity. For more than a century this 'Antikythera mechanism' puzzled academics, but now, more than 2000 years after the device was lost at sea, scientists have pieced together its intricate workings. In "Decoding the Heavens", Jo Marchant tells for the first time the story of the 100-year quest to understand this ancient computer. Along the way she unearths a diverse cast of remarkable characters - ranging from Archimedes to Jacques Cousteau - and explores the deep roots of modern technology not only in Ancient Greece, the Islamic world and medieval Europe.

Life in the Universe

129 The Continuing Enigma Ufo Readers Digest Book is about ufo's etc.

Photographic Collections

128 Rainbows, Halos and Glories Robert Greenler Over 200 illustrations, many in full colour, capture for both the layman and scientist the beautiful optical effects that we see in the sky. The author describes and explains these effects in non-technical language.

75 Infinity Rising Nik Szymanek Nik Szymanek's 100 page book published May '05 is full of his own beautiful new images and infectious enthusiasm for astronomy and astrophotography. It is a helpful guide to photographing all aspects of the heavens. More, it features his unique descriptions of observatories and very large telescopes on La Palma and Mauna Kea.

117 The Cambridge Deep-Sky Album Philip Teece; Jack Newton Photographs of galaxies, nebulae, and star clusters are accompanied by advice on observing objects in the night sky with a telescope

Practical Astronomy

52 Astrophotography H J P Arnold Capturing the night sky in photographs is usually assumed to be the domain of specialists, but Arnold opens this seemingly remote area to anyone with an interest in photography. He guides the reader step by step through choosing and using a camera; photographing with a telescope; getting the best out of black-and-white and colour film; and processing astrophotographs at home or in a hotel room. He gives instructions on photographing the Sun and Moon, planets, meteors, comets, stars and man-made satellites, as well as capturing rainbows, halos and other earthly phenomena. This new edition has been fully updated to include the various forms of digital imaging, ranging from digital cameras to webcams, as well as, of course, dedicated astro CCDs (charge-coupled devices). Such equipment has led to a revolution in observational astronomy, allowing amateurs to image faint nebulae and galaxies quickly and in great detail. Techniques of digital manipulation are also discussed, such that the reader will be familiar with all forms of astroimaging. Lavishly illustrated with more than 100 colour and black-and-white photographs, as well as star charts and diagrams, this book is attractive and approachable as well as highly informative. It concludes with a list of equipment resources and useful contacts.

148 Turn Left at Orion Guy Consolmagno; Dan M. Davis With over 100,000 copies sold since first publication, this is one of the most popular astronomy books of all time. It is a unique guidebook to the night sky, providing all the information you need to observe a whole host of celestial objects. With a new spiral binding, this edition is even easier to use outdoors at the telescope and is the ideal beginner's book. Keeping its distinct one-object-per-spread format, this edition is also designed for Dobsonian telescopes, as well as for smaller reflectors and refractors, and covers Southern hemisphere objects in more detail. Large-format eyepiece views, positioned side-by-side, show objects exactly as they are seen through a telescope, and with improved directions, updated tables of astronomical information and an expanded night-

Practical Astronomy

4	Light Pollution	Bob Mizon	by-night Moon section, it has never been easier to explore the night sky on your own. Light-pollution is the modern scourge of optical astronomy. More and more observing sites are being lost as the glare of city lighting blots out the night sky. Professional astronomical observatories are located far from cities, but amateur astronomers often do not have this luxury. This book considers the two available strategies open to astronomers - get rid of the light pollution by lobbying Authorities and Standards Organisations, and minimise its effects by using the correct instrumentation. The book contains an extensive detailed catalogue of deep-sky and other objects that - despite what one might believe - can be seen from variously light-polluted sites, for practical observers.
60	Philip's Stargazing with a Telescope	Robin Scagell	Many people dream about exploring the heavens with a telescope but are often disappointed because they do not know how to use one properly. This guide reveals what to expect from a telescope and how to choose the right one, and gives explanations of how they work, and how to progress from first-time user to hobby observer. It gives practical help for setting up and using any telescope, and provides lists of objects to look at with different sizes of telescope, from both town and country, including the Sun, Moon, planets, comets, asteroids, stars, clusters, variable stars, double stars, novae and supernovae, nebulae and galaxies.
125	New Astronomer	Carole Stott	This is the essential guide that shows you how to get the most from your observations. For thousands of years observers have gazed up at the night sky and wondered at the celestial bodies that occupy the vastness of space. If you have ever wanted to learn more about such phenomena or just how to locate the major constellations and the planets this practical and accessible guide will provide all the information you need. This is a complete guide to the night sky. Covering comets, aurora, asteroids and nebulae as well as the moon stars and planets "New Astronomer" is fully illustrated with drawings and photographs. Detailed sky charts help you to navigate around the heavens and locate the major constellations stellar objects and the planets. For each of the planets there is a specially prepared map to help you pinpoint the exact location of each one up to the year 2010. A Planisphere is included that shows you the entire sky above your head for any time of night and for any time of the year. This title discusses what to use and how to use it. "New Astronomer" offers comprehensively detailed yet straightforward advice on choosing and using the very latest equipment including binoculars telescopes and accessories. It also shows you how to take photographs of celestial objects using an ordinary SLR camera linked to your astronomical equipment. For the real enthusiast this book features state-of-the-art technology such as computer-linked digital imaging. Whether you are already an experienced astronomer or just starting out this essential guide contains all you need to know.
42	Amateur Telescope Making (Patrick	Stephen Tonkin	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.
43	Binocular Astronomy (Patrick Moore's	Stephen Tonkin	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.
33	Astronomy with Small Telescopes	Stephen F. Tonkin	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. From the reviews: "Astronomy with Small Telescopes offers the amateur astronomer practical 'how-to' advice. Specifically, this book shows the amateur how to get the most performance out of a small telescope. ...

The chapter entitled 'Visual Observation of Deep-sky Objects with Small Telescopes' includes information that would be helpful to the novice amateur. ... some readers will appreciate the convenience of having all of this information in one well written and easy to read book. Astronomy with Small Telescopes is recommended for public and school libraries." (Travis Dolence, E-STREAMS, Vol. 5 (10), 2002) "As a regular user of small telescopes to explore the night sky, I was keen to discover if Stephen Tonkin's book would encourage the newcomer to astronomy and provide useful information for the more experienced observer. I am delighted to say that it succeeds admirably in both respects. ... This is a well-produced, informative book which goes a long way to dispel the notion that you need an expensive, large-aperture telescope to enjoy or contribute to the world of astronomy." (Mike Ropelewski, The Deep Sky Observer Magazine, Issue 126, 2001) "This latest book summarizes the experiences of several authors who have used telescopes ranging from a simple 60 mm aperture refractor on an altazimuth mount, through to the workings of the fork-mounted ETX telescope and the portable C5. ... the advice given in this book will certainly help to improve the performances of almost any instrument. ... the individual chapters made very interesting reading I would warmly recommend this book to anyone thinking of buying a portable telescope for work or for pleasure." (Neil English, Astronomy Now, April, 2002) "This is a book concerned primarily with astronomical hardware. Each chapter is written by one of eight contributors, all users of small telescopes. ... Kevin P. Daly's account of his Celestron 114-mm reflector and favourite objects to observe is a pleasure to read, containing much that will be of interest to the newcomer. ... this chapter should inspire even the most house-bound armchair astronomer to spend a night under the stars with the telescope." (Nigel Bannister, The Observatory, Vol. 121 (1165), 2001) "The book is part of 'Patrick Moore's Practical Astronomy Series'. It discusses the use of telescopes up to 5-inch aperture (125mm) and thus includes a number of modern popular instruments. ... I found the chapter on the ETX telescopes very useful Apart from the equipment itself, the book contains suggested projects including deep sky and a chapter on 'meteor observing with a small radio telescope'. A useful and very practical book for the amateur astronomer starting with a first scope." (The Astronomer, Vol. 38 (446), 2001)

20 Practical Amateur Spectroscopy

Stephen F. Tonkin

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 spectrosopes 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.