

separate works, every single one of them with Loeb as a co-author” (most astrophysicists won’t write that many papers in their entire career; at last count, Loeb is approaching a thousand refereed-journal papers), the end notes do provide references to the works of others mentioned in the text, whether or not they agree with Loeb.

There are a few black-and-white photos scattered throughout the book. Notes are footnotes, often providing additional humour. The main text is followed by a substantial collection of backmatter: a couple of pages of glossary, six on further reading (by chapter), a page of picture credits, almost ten pages of index in small print, and one paragraph about the author. This is not an attempt to survey astronomy systematically as a whole or even a part of it; rather than the definitive collection, it’s more a ‘best of’, highlighting topics of interest to the author and probably the reader, providing more details than is usually the case on many of them. Despite my minor qualms, the book is an enjoyable read, presenting some topics not often encountered in popular-astronomy books and other more common ones from a new perspective. — PHILLIP HELBIG.

References

- (1) A. Loeb, *Extraterrestrial: The First Sign of Intelligent Life Beyond Earth* (John Murray), 2022.
- (2) P. Helbig, *The Observatory*, **142**, 184, 2022.
- (3) R. Trotta, *Starborn: How the Stars Made Us — and Who We Would be Without Them* (Basic Books), 2023.
- (4) P. Helbig, *The Observatory*, **145**, 180, 2025.
- (5) A. May, *Eyes in the Sky: Space Telescopes from Hubble to Webb* (Icon Books), 2024.
- (6) P. Helbig, *The Observatory*, **145**, 186, 2025.

Eyes in the Sky: Space Telescopes from Hubble to Webb, by Andrew May (Icon Books), 2024. Pp. 176, 20 × 13 cm. Price £10.99 (hardbound; ISBN 978 1 8377 31275 5).

Not to be confused with any of a number of non-astronomy books or other items with identical or similar titles (such as the film *Eye in the Sky* with Helen Mirren or the unrelated song of the same name by The Alan Parsons Project), nor with *Eye on the Sky*^{1,2} nor with *Eyes on the Skies*^{3,4}, nor *Eyes on the Sky*^{5*}, this little book is about telescopes in space or, more accurately, about what they observe (it is not about the technical details of the telescopes themselves). May has a PhD in astrophysics and worked in academia and in government and private sectors before becoming a freelance writer and consultant. This book is part of the *Hot Science* series edited by Brian Clegg, in which both May and Clegg have written several books each; some of the latter’s have been reviewed in these pages^{6–9}. The author takes us through various space telescopes such as *HST*, *JWST*[†], *Spitzer*, *Chandra*, *Fermi*, *Kepler*, *TESS*, *Herschel*, *Gaia*, and *Planck*, along the way providing the necessary essential background (the electromagnetic spectrum, different types of telescope optics, etc.), and highlighting their most important observations and basic astrophysical details about the objects observed. Of course, not all telescopes in space could be covered, but conspicuous by its absence is the very successful *ROSAT*.

*Amazingly, not reviewed in these pages!

[†]Including the now apparently obligatory (but here fortunately brief) remark that it should have not been named after Webb.

There are a few black-and-white figures scattered throughout the book, which ends with an index. All in all a very enjoyable and well written book for lay readers interested in astronomy, but also a good quick reference for those who need an executive summary of one of the space telescopes covered. — PHILLIP HELBIG.

References

- (1) D. E. Osterbrock, J. R. Gustafson & W. J. S. Unruh, *Eye on the Sky: Lick Observatory's First Century* (University of California Press), 1988.
- (2) D. Stickland, *The Observatory*, **109**, 29, 1989.
- (3) G. Schilling & L. Lindberg Christensen, *Eyes on the Skies: 400 Years of Telescopic Discovery* (Wiley), 2009.
- (4) C. Stott, *The Observatory*, **129**, 287, 2009.
- (5) F. Graham-Smith, *Eyes on the Sky: A Spectrum of Telescopes* (Oxford University Press), 2016.
- (6) B. Clegg, *Gravitational Waves: How Einstein's Spacetime Ripples Reveal the Secrets of the Universe* (Icon Books), 2018.
- (7) P. Helbig, *The Observatory*, **138**, 326, 2018.
- (8) B. Clegg, *Dark Matter & Dark Energy: The Hidden 95% of the Universe* (Icon Books), 2019.
- (9) P. Helbig, *The Observatory*, **140**, 61, 2020.

Modular Forms and String Theory, by Eric D'Hoker & Justin Kaidi (Cambridge University Press), 2025. Pp. 480, 25 × 18 cm. Price £59.99/\$79.99 (hardbound; ISBN 978 1 009 45753 8).

Modular forms are not, perhaps, a topic close to the heart of many astronomers. Sinusoidal functions are periodic on an interval; more complicated functions can be expanded in a basis of them. Modular forms — elliptic functions such as the Jacobi theta function — can be viewed as generalizations of these, to capture the periodicity properties of tori of arbitrary shape. For those who wish to do (2-dimensional) quantum field theory on a torus (something that is an essential part of the standard formulation of amplitudes in string theory), modular forms will crop up to a greater or lesser extent.

This book provides a detailed account of modular form from a physics perspective, in the context of their application to string theory. It is written by two of the experts in the subject and gives a comprehensive mathematical physics account of modular forms. Certainly, this book is an essential reference for researchers working in this field. This is not a book to dabble into for a quick summary of the topic: it is a serious book for serious scholars in this area. It must, however, be candidly admitted that this will include few, if any, astronomers: to appreciate this book, a strong side interest in mathematical physics would be necessary. — JOSEPH CONLON.

The Stargazers' Almanac 2026. An Illustrated Month-at-a-Glance Guide to the Night Sky, compiled by Callum Potter (Floris Books), 2025. Pp. 28, 30 × 42 cm. Price £14.99/\$24.99 (stiff paper; ISBN 978 178250 945 5).

The perfect Christmas present for anyone even remotely interested in the continually-changing pageant of the night sky, this *Almanac* has been the ideal guide for laymen and beginners for many years. For an observer located at a latitude around 50° North, the calendar-like *Almanac* can be hung up to display the sky in both northerly and southerly directions for each month. The constellations are clearly marked and so are the planets visible at the time. Highlights are pointed out (*e.g.*, Orion and its nebula in January) and a panel along the lower part of the chart shows the phases of the Moon. No telescope needed — just find a dark location and enjoy the celestial show. — DAVID STICKLAND.