are neither footnotes nor endnotes, and a few black-and-white diagrams are scattered throughout the text. My only real complaints are that the 'References' chapter (actually, more accurate would be 'sources' or 'further reading' since, as with many textbooks, there are few actual citations in the text) sometimes lists outdated editions of books, and that the index (fewer than three pages, though in small print) is a bit too brief (this is certainly a book in which readers will go back and look things up; a few times I couldn't find in the index what I was looking for).

This should be neither the first nor the last book one reads on GR. Less technical introductions are useful, as this book essentially assumes that its goals are clear, and those needing more details must consult more advanced texts. This book is useful in that it provides a bridge between the two, consisting of the details of tensor-calculus manipulations and 'Index Tricks of the Trade' (sect. 2.9). Especially for those who like to learn their maths as needed as they go, this is one of the few books which fit that need.* — Phillip Helbig.

References

(1) J. B. Hartle, *Gravity: An Introduction to Einstein's General Relativity* (Cambridge University Press), 2021.
(2) P. Helbig, *The Observatory*, **141**, 303, 2021.
(3) P. Helbig, *The Observatory*, **142**, 70, 2022.
(4) W. D. Heacox, *The Expanding Universe: A Primer in Relativistic Cosmology* (Cambridge University Press), 2015.
(5) P. Helbig, *The Observatory*, **136**, 204, 2016.

You Can't See in the Dark with the Lights On, by Kevin Krisciunas, with illustrations by Brian Quiroga (Innovative Ink Publishing), 2024. Pp. 30, 25 × 20 cm. Price $8·99 (paperback; ISBN 979 8 3851 1803 8).

The author and illustrator have dedicated this booklet "for everyone young and old who has wished to experience the joy of discovery." The target readership, however, seems to be children about the age of the boy who discovers the dark night sky. He looks about twelve in one drawing and eight in another. The text is entirely in verse, four to eight lines per page. Each line contains seven 'dah DUM' patterns, ending with a one-or-two syllable rhyme. The vocabulary extends to words like 'hemispherical' and 'planetarium' which might (or might not) need translation for younger readers.

The author provides an interesting comparison of distances: the size of a baseball diamond (Yankee Stadium) to an astronomical unit is very nearly equal to the ratio of the distance New York to Timbuktu to the distance from the Solar System to Proxima Centauri. A target reader will not, of course, need to use this to figure out the size of a baseball stadium as I did!

The main message is that very dark sites are wonderful and should be preserved, and author and illustrator drop quite a few factoids about stars, the Solar System, and the Milky Way in making their main point. My only serious quarrel is with the statement that "every star there ever was is in a constellation." I know where CM Tauri is today and roughly where it was a millennium ago, but its location as a newly formed main-sequence star of 8–10 solar masses occurred something like 10 million years ago, when the only patterns we would still recognize were the globular clusters and a few of the older open ones like M67, the Hyades, and Pleiades. Many stars that are still around today are a few billion years old, and have been around the Milky Way many times, with (I suspect) no constellation-naming species to locate them.

*Another[4] reviewed in these pages[5] covers similar ground, but only with respect to cosmology.

Conflict-of-interest statement: My copy of *You Can't See in the Dark with the Lights On* was a gift from the author, who kindly inscribed it "to the most avid reader I know." — Virginia Trimble.

Data Modeling for the Sciences, by Steve Presé & Ioannis Sgouralis (Cambridge University Press), 2023. Pp. 415, 25 × 18 cm. Price £59·99/$74·99 (hardbound; ISBN 978 1 009 09850 2).

Data Modeling for the Sciences is an intermediate-level book for students and researchers who wish to gain either a wide coverage of data-analysis techniques, or a deeper understanding of the underlying principles, or both. It is wide in scope, covering everything from statistical principles, to the computational methods that are now the norm for analysis of data sets, which are rarely simple enough for analytic techniques to be applicable. The book therefore takes a more data-driven approach than many. One aspect that sets this book apart is the large number of problems that it sets, the bulk of them being computational, often generating synthetic datasets and subjecting them to the analysis methods presented in the book. The book is targeted at Masters-level students in the sciences, who will typically have the appropriate computational skills that are assumed, but also at more experienced researchers, who will also find it a very valuable resource. There are some sections that are marked as advanced, and some of these would probably require some time for Masters students to absorb. Unusually for a review, I more-or-less read the book from cover to cover, as I felt that there was a lot to learn from this book, and I was right, and found it a rewarding read. I found the ordering of topics quite interesting — for example, there is a long chapter on dynamical systems, and Markov processes precede the more foundational inference chapters. It meant that sometimes one has to pause to consolidate and work out how everything fits together, but that is no bad thing. I recommend the book strongly for anyone involved with analysis of data with any degree of complexity. — Alan Heavens.

From The Library

Modern Physical Laboratory Practice, by John Strong (Prentice Hall), 1938; 15th printing (Black & Son Limited), 1949. Pp. 642, 23 × 15 cm.

Why is this an astronomy book? Well, it was deaccessioned by the RAS a while back, after living there for more than 70 years. Second are the authors: John Strong is listed as Assistant Professor of Physics in Astrophysics at the California Institute of Technology (he headed a balloon-infrared group later in life and the second of his four collaborators was Albert E. Whitford, Assistant Professor of Astronomy at Washburn Observatory of the University of Wisconsin (later director of Lick Observatory and the chairman of the first, 1962, decadal review panel that attempted to set priorities for government funding for astronomical equipment (*etc.*) for the next decade)).

Third is the content. Although Chapter I begins with glass blowing (still useful in some branches of science, though maybe not in astronomy) and Chapter XX ends with casting replicas of small items using cuttlebone (now useful only for cuttlefish), quite a lot of the middle deals with optics, measurement of radiant energy, photoelectric cells, and photography, focussing on astronomical photography with special emulsions provided by the Eastman Kodak Company, whose astro-friendly director of research, C. E. K. Mees, appears several times in the text. Also to be found tiptoeing around in the footnotes are Karl