

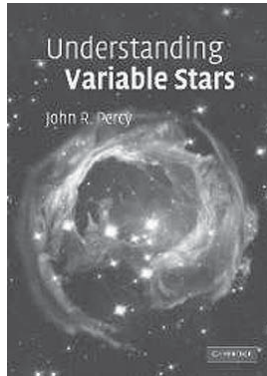


Understanding variable stars

by John R. Percy

Cambridge University Press, 2007. ISBN 0-521-23253-8. Pp xxi + 350, £30.00 (hbk).

Back in 1967 Cuno Hoffmeister, with others, published *Variable Stars*. It was not translated into English (by Storm Dunlop of the BAA VSS) until 1984, has long been out of print (and to a large extent out of date) and yet has remained the primary reference work for the high-level amateur, undergraduate or graduate who wishes to understand why stars vary. In the preface to *Understanding variable stars* John R. Percy makes reference to Hoffmeister's *Variable stars* and his desire as long



ago as 1980 to write a book, updating the subject and for the same audience. To seek to update and replace a seminal work in any field is high goal indeed, but fortunately not one that is beyond Percy's talents.

The format of *Understanding variable stars* will be familiar to those who have examined technical reference works: 350 pages organised into 10 chapters with references, list of figures and illustrations etc. While the typeface and many of the illustrations aren't exactly generous in size, both are quite legible.

The first three chapters are short, but very necessary and very well executed, descriptions of the

basics of stellar structure, distances, magnitudes, luminosities and the history of the study of variable stars.

The bulk of the book that follows deals with each of the different types of variability in stars, finishing with an epilogue of essays on the role of variable stars in astronomical research, amateur astronomy, science education and communicating with the general public.

The key theme to this book is providing an understanding of the underlying causes of variability. At the level to which this book is aimed, formulae and graphs which have to be examined carefully for understanding were to be expected. Thankfully these are kept to an absolute minimum. Percy's engaging and very readable writing style makes it quite possible to dip into this book for general educational pleasure reading, as well as to use it as a reference work when seeking the most recent research thinking. The book is heavily laced with references to other publications and online resources, which is excellent for those wishing to follow up a particular subject or issue.

Understanding variable stars has few flaws worthy of note, however there are a couple of niggles that merit mention.

The editing of the book is generally excellent, with few typographic and similar errors, except in the chapter on eruptive variable stars which stands out as a consequence. Among other examples, on page 233 Figure 7.6 is labelled as the lightcurve of U Gem at minimum, whilst the text below describes it as the lightcurve of Z Cha. Unfortunately both possibilities could be correct as the curves are relatively similar; checking the original reference given for the diagram reveals that it is the text which is wrong. More glaringly on page 238 there is a list of 'four recurrent novae' including 'T Coronae Australis', rather than T Coronae Borealis.

Throughout the book Percy makes frequent reference to the work and publications of the American Association of Variable Star Observers (AAVSO). It is both fitting and gratifying that the work of amateurs and an amateur organisation be recognised in this field. However, notwithstanding Percy's comment in the epilogue essays that 'the AAVSO is not the only group', the paucity of references to the work of the BAA VSS, Belgian VVS and RASNZ (among many others) in the preceding sections means that the general reader could be forgiven for believing otherwise.

These small niggles should however be seen in perspective. *Understanding variable stars* is an excellent book on many levels, not the least of which is as a worthy successor/ replacement for the work of Hoffmeister *et al.*

Chris Jones

Chris Jones has been observing variable stars from light polluted Essex for longer than he is willing to admit. In recent years he has devoted his efforts to investigating the poorly studied variables discovered by the British nova hunter Mike Collins.

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