

BOOK REVIEW

Observing and Measuring Visual Double Stars

Bob Argyle, ed. New York: Springer, 2004. Paperback. 326 pages + cd-rom. \$39.95 (paper) ISBN 1-85233-558-0.

This book contains 25 chapters of material written by editor Bob Argyle and ten other contributors from the field of double star astronomy. An effort is made to present the subject in such a way that both novices and “seasoned veterans” will find information that can be of great value. In the process, a comprehensive review of the aspects of observing and measuring visual double stars is presented.

At the basic level, the book discusses the nature and different types of double stars, and why they should be observed. Optical concepts, and the advantages and disadvantages of different types of telescopes for doing double star work, are also explored. Chapters are also included on the use of binoculars and binary star formation.

Chapters in the book of a more advanced nature include discussions of the orbital elements of a visual binary star and how orbits are computed. Various measuring techniques are also covered, such as the use of different types of micrometers, the CCD camera, and speckle interferometry.

The last section of the book highlights what amateurs can contribute to this field, and lists some useful formulae, star atlases, software, and catalogues. The final chapter discusses how to publish the results of one’s work.

A CD-ROM is also included that I have utilized on many occasions. Some of the resources on the CD-ROM include the *Washington Double Star Catalog*, the *Fourth Catalog of Interferometric Measurement of Binary Stars*, the *Sixth Catalog of Orbits of Visual Binary Stars*, the *Tycho-2 Catalog*, and the *WDS Photoelectric Difference Magnitude Catalog*. There is also a software section that allows for the instant computation of such parameters as precession, combined magnitudes of component stars, position angle and separation from inputted orbital elements, and micrometer calibration.

In summary, I will state that some parts of this book may seem too advanced for those who are just starting out as double star researchers, and the more advanced researcher may find some of the early chapters to be rather elementary. However, I believe that anyone who is seriously interested in the study of visual double stars would want to add this book to his or

her library. Personally, I have utilized this book as a reference on several occasions over the past 3 years.

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