How to observe the Sun safely

by Lee Macdonald


This is a revised edition of Lee’s original 2002 publication How to observe the Sun safely. The second edition brings the reader fully up to date with the advances in technology during the last decade, particularly in the area of digital photography, imaging and processing.

As an active solar observer and regular contributor to the BAA Solar Section, Lee knows first hand the pitfalls and tricks of the trade. He also writes in an easy style, avoiding jargon and without assuming knowledge on the reader’s part. However, even experienced solar observers will gain from this book as the comprehensive content takes the reader from the basics through to more complex issues such as orientation of the solar disk and establishing the solar co-ordinates of sunspots.

The book begins with the composition of our star and an explanation of the various features to be found in the chromosphere and photosphere. The following chapters discuss the different types of telescope on the market and how they can be employed to observe the Sun, before going on to explain solar features in more depth and how to observe and record them.

This edition is peppered with images, diagrams and charts both enhancing the visual appearance and giving depth to understanding as the reader progresses. I particularly liked how chapters were sub-divided into related topics, leaving the reader just enough to digest before going on to the next stage.

H-alpha telescopes and filters by Coronado, Lunt, Solarscope and Daystar are introduced to this edition as well as advice on how to choose the most appropriate system to suit the reader’s requirements and pocket. Particularly useful was the description on how to measure the positions of prominences, the equipment required and where to get it.

The final two chapters are devoted to imaging with digital cameras and webcams, and processing methods. Don’t worry if you’re not a ‘photographer’; this book will have you rushing to buy a camera and have a go, confident that you will be the next Dave Tyler!

I commend this book to anyone interested in solar observing or who wants to take their existing skills and knowledge that bit further. Lee has provided all the reader needs to know, conveniently within the cover of a single publication.

Lyn Smith

Lyn is Director of the BAA Solar Section and has enjoyed observing our nearest star for over 18 years.