# The sky at Einstein's feet

**by William Keel**

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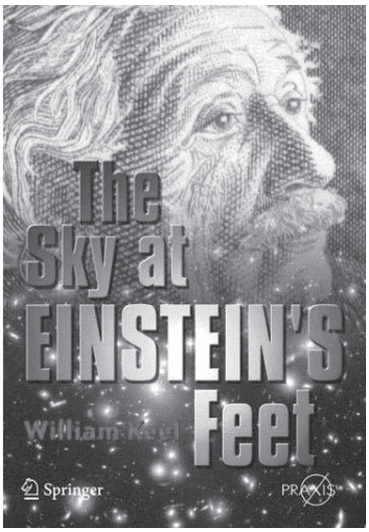
This book is a review of current observational astronomy and the contribution of Einstein's thought to our present understanding. It possesses considerable depth of coverage and insight and, generally, reads very well. The acknowledgement of the debt to Einstein generally works, too.

If you want the title explained, you must read the book. William Keel is a talented writer and that is about all I know about him.

His explanation of the ellipsoid geometry of some light echoes is brilliant. Another early example of good explanation is the odd fact that, if the Sun were suddenly to switch off like a light we should see it go out first at the disk centre and spreading to the limb. However, I dispute the idea that our appreciation of these phenomena is solely, or even chiefly, due to Einstein. The speed of light was first estimated in the 1680s and attempts to disprove the constancy of the speed of light occupied much of the last thirty years of the 19th century.




The editing strikes me as uneven – a colour version of a monochrome plate is listed as a 'Table'. A beautifully worked illustration of the relativistic clustering of objects, if one were proceeding at speeds closer and closer to that of light, suffers because it is difficult to identify the target constellation of Orion in the first frame, impossible thereafter.

Section 3.1 gives a lot of detail on the discovery of Sirius B. Much of this was new and welcome to me. The cautions about gravitational redshifts being expressed in $kms^{-1}$ are timely and well explained. Similarly, I really enjoyed reading about the *HIPPARCOS* mission's need to take into account relativistic factors to achieve the impressive accuracy of its results.

I enjoyed much more than I could criticise adversely and both style and pace are good. For a general reader this book provides insight and information in an entertaining manner. There is plenty of depth, more than adequate scope, and lots of nuggets of unusual information.

**Roger O'Brien**

*Roger is an Open University tutor for astronomy, planetary science and cosmology. He maintains that curved space is much easier to understand after several pints of Norfolk Wherry.*