

Mathematical Astronomy Morsels V

by Jean Meeus

Willmann-Bell Inc (www.willbell.com), 2009. ISBN 987-0-943396-92-7. Pp 373, \$29.95 (hbk).

Jean Meeus is a retired meteorologist whose main interest is mathematical astronomy (eclipses, occultations, planetary positions and phenomena, asteroids) and has written many books and articles. He was born in 1928 and studied mathematics at the Belgian University of Louvain. He is an Honorary Member of the BAA having been elected in 1955 November. Asteroid 2213 is named in his honour.

The fifth, and last book in this amazing series contains 372 pages of fascinating facts. (Jean has told me that in view of his age this will definitely be his last book in the series. However he will continue to provide material for the BAA *Handbook* and various astronomical mailing lists.) All these books are written assuming an 'appropriate astronomical background'. Each can be read in isolation, although there are references to previous *Morsels* in the text. *Morsels V* contains 69 chapters divided into six categories: The Moon, Eclipses and Occultations, Planetary Motions, Planetary Phenomena, On the Celestial Sphere and Varia.

I find books of this type absolutely riveting, and frequently dip into the various volumes. I have also given talks based on some of the fas-

inating facts discovered by Jean. Some of the highlights in *Morsels V* are:

- How bright stars can migrate from one constellation to another, for example β Tauri was in Auriga until 1867.
- Simultaneous occultations of three bright stars
- Long and short duration planet-Moon occultations
- Planetary conjunctions – indeed I recall the very pretty sight, in completely clear skies, of Saturn and Regulus close to the totally eclipsed Moon in 2008 February. Jean says that no planet will be similarly close to the totally eclipsed Moon until 2061, when it will be Mars' turn. In 2076 Saturn will come within $1^\circ 21'$.

One of Jean's passions is eclipses. When I reviewed *Morsels IV* I was amazed to find that it managed to devote a further 115 pages to eclipse facts. Well in this book his chapter on Eclipses and Occultations occupies another 85 pages!

Mathematically, Jean's results are a perfect example of how data should be presented – never using more accuracy than is justified, well tabulated and well explained. Jean always explains his workings.

Sheridan Williams

Sheridan is Director of the BAA Computing Section. He worked as a rocket scientist with the Ministry of Defence, before taking up a post as lecturer in mathematics. He has always been a keen visual observer and built his own telescope when he was 17. He has written several books and guides on eclipses and travelled to see 11 total solar eclipses.

