

Library - Book Review

Extreme Stars: At The Edge Of Creation

By James Kaler

Published by Cambridge University Press

Reviewed by: Graham Crossley

(Extracted From AAQ July 2003 Newsletter)

At present there is a virtual plethora of good books of astronomical interest on the market, ranging from the coffee table variety to full blown text books. Occasionally, one comes in to print that stands taller than most by virtue of its presentation, wealth of knowledge and the diagrams it contains. Extreme Stars is worthy of this calibre and with its easy reading style, I found it hard to put down once opened. The list of chapters below will give a hint to the treasure of knowledge on the lives of stars that await the reader.

1. Sun and stars
2. The faintest (and coolest) stars
3. The coolest stars...continued
4. The hottest stars
5. The brightest stars
6. The largest stars
7. The smallest stars
8. The youngest stars
9. The oldest stars
10. The strangest stars

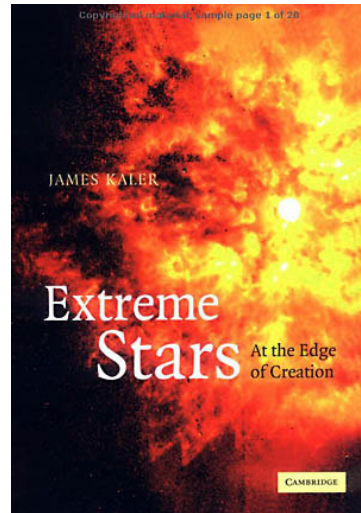
You probably have received the message by now that the author has encompassed all sections of stellar types and indeed, he has. The explanations of their evolution, helps make this book essential to all those who have a passion for the stars and their lives.

There is a very inclusive eight-page index following the text. The book does not contain a glossary of terms, however, this is not essential as Professor Kaler has performed an excellent task of explaining terms and concepts in each chapter as they arise.

There are many well presented plates, mostly in colour, between pages 132 and 133. Added to this, there is a generous and balanced quantity of black and white images, diagrams and tables, all spread liberally across all chapters of this publication. For lovers of Hertzsprung-Russell diagrams, this book contains all you could wish for!

Interesting and absorbing facts start from page one (Sun and Stars). A quote from the book dealing with our sun, "Shining with 4×10^{26} watts, the equivalent of 4 million million million million 100 watt bulbs, it releases the world's annual energy production in $1/10,000,000$ of a second and has been doing so for 4.6 billion years."

If the reader, like me, gets sweaty palms from books with lengthy equations and an instant urge to replace the book quickly from where it came, then this book is for you. Extreme Stars is very subtle in its use of maths within its text. Anyone with even a



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modest knowledge in astronomy will benefit greatly from this book, as of course, will those more advanced in stellar astronomy.

Professor Kaler deals with more than just facts in his book; he takes the reader a long way towards understanding the world of atoms, spectroscopy, as well as the physical and chemical nature of stars with some interesting snippets of history behind the discoveries. All is written in a lucid, yet concise, style that will hold a reader's attention page after page.

Although dealing with stars that we are well acquainted with, such as Eta-Carinae, Rigel, Sirius A and B and a host of others. There are some not so well known inclusions that make for some riveting reading:- In the Brightest Stars, Professor Kaler mentions a star known simply as Cygnus OB2 #12, a star heavily obscured by dust at a distance of 5,800 light years. He quotes in his book:- "If there was no dust, Cygnus OB2 #12 could be seen with the naked eye even if it lay 60,000 light years away. If at the distance of the nearest star Alpha Centauri, a mere four light years away, this single star would be some 10 times brighter in our sky than the full moon." Statistics of various stars turn up in this style regularly throughout the text, thus enhancing its enjoyment for the reader.

To sum up this review on *Extreme Stars*, if your passion is for the stars and their evolution, whether as an individual or librarian of an astronomical society, do yourself a favour and buy a copy, it's guaranteed not to gather dust on any shelf!