“Seven Wonders of the Cosmos”, by Jayant V. Narlikar, Cambridge University Press, 1999, Rs. 495/-.

The eminent British-Indian scientist and populariser of science J.B.S. Haldane once cautioned us that “The universe is not only queerer than we suppose, it is queerer than we can suppose”. Every culture known to us has its cosmology, a term derived from combining two Greek words, *kosmos,* meaning "order," "harmony," and "the world," and *logos,* signifying "word" or "discourse." Since the first hunter-gatherers wondered about the heavens and drew pictures in caves to black holes and space time warps, our view of the universe has undergone tremendous changes. And the interesting thing is that our knowledge is nowhere near complete. Everyday, new observations confirm or refute hypothesis and models which the scientists make of the universe. J.V. Narlikar’s book takes us on a fascinating journey of the cosmos as we know it today.

Jayant Vishnu Narlikar does not need an introduction. He is, with the possible exception of APJ Abdul Kalam, the best known living Indian scientist. He is well known for his work on steady state cosmology which is proposed as an alternative to the generally accepted cosmological model known as the Big Bang cosmology. He is also a very prolific writer and has written several books on popular science and even science fiction. In fact, he won the prestigious UNESCO Kalinga Prize for science popularisation in 1996.

The “Wonder” in the title refers to phenomenon or objects which have mystified human beings and have often defied explanation (though in this context, why only seven is mysterious) . Narlikar starts his fantastic voyage from the earth, moon and the solar system. From here, he moves outwards and travels to the stars and the universe as a whole. Several different phenomena are discussed in the book including the life cycle of stars, the death of stars and the formation of new stars from the cosmic debris and the expansion of the universe. We meet mysterious and amazing inhabitants of the universe like pulsars ( the cosmic time keepers, stars which send out radio pulses at a rate which is more regular than the most accurate atomic clocks) or quasars ( objects at the edge of the universe which give out a thousand times more energy than a galaxy!). Is the universe going to continue expanding forever or are we doomed to a final crunch? How much matter is there in the universe and of what kind? These are some of the other speculative topics which Narlikar touches upon.

Among the sciences, cosmology holds a special place because unlike other sciences where we can carry out experiments, here we can only observe the universe. Yet, it is a triumph of the scientific method that we can yet understand the cosmos as well as we do. The laws of physics which we discover and test in the laboratory are found to be valid in the whole cosmos as far as we know. This itself is a remarkable fact that across space and time, the laws of “nature” remain immutable.

Ever since the infamous “Tao of Physics”, there has been a whole genre of ”pop” popular science books which seek to trivialise the complicated and subtle issues in science. That is not the case with this book. Narlikar simplifies without trivialising and the explanations given are very lucid and easily followed by the lay reader. His style is extremely engrossing and user friendly. The one thing missing is a bibliography for further reading which could be used by the interested reader to follow up on the subject of her interest. The other major lacuna in the book is the lack of sufficient detail on any one topic. For that one will have to go to a more detailed book like Wienberg’s “ The First Three Minutes”. But if you want to just get a flavour of what our universe is all about, and how much of it we understand, read this book.