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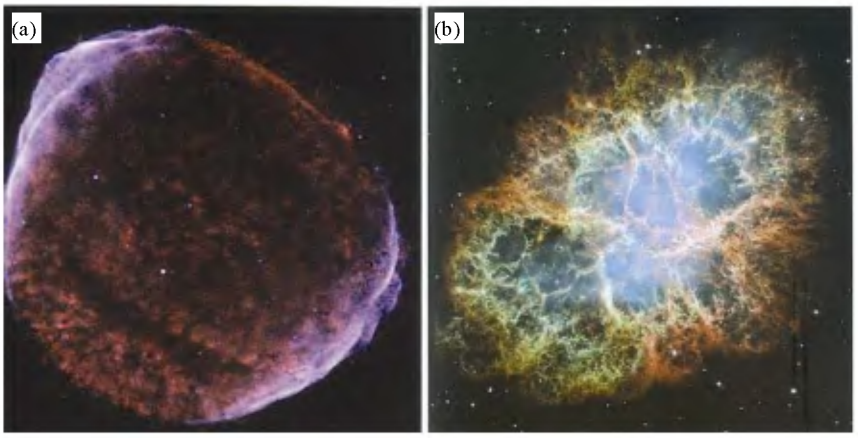

(a) *Chandra* X-ray image of the remnant of the supernova of 1006 AD. (b) A composite Hubble Space Telescope image of the Crab Nebula. Thermal filaments composed of ejecta from the explosion appear around the outer part of the nebula.

A new issue of the *Annual Review of Astronomy and Astrophysics* (*ARAA*) is always awaited eagerly, as it covers the important developments in the field. One gets to see the directions the various areas are taking. The volume under review continues this trend.

This volume has a total of 13 review articles covering a wide range of topics, from the interstellar molecules to cosmology. As the preface points out, the reviews while not self-contained, do bring out the inter-connectedness of the various fields, and hence act as good starting points for a beginner in the field. However, the articles in the recent volumes tend to be densely packed with technical material, reflecting the tremendous growth in each subfield. Hence these are no longer so easily accessible to a graduate student as the earlier reviews used to be.

Many of the articles in this volume deal with the formation and the last stages of evolution of stars. The Crab nebula, which is a staple of popular literature in astronomy, makes an appearance here. This is a remnant of the supernova that exploded in AD 1054. The article by Hester discusses a wealth of details now available for this, covering a variety of wavelengths from optical to X-rays, as seen from the Hubble space telescope to the Chandra X-ray observatory. Note, for example, figure 1 (p. 129), which shows in exquisite detail the thermal filaments formed in the ejecta from the supernova. The detailed shock dynamics of these features is yet to be understood.

There are two articles on galaxies in this volume. The article by Ho on the nuclear activity in nearby galaxies is a good summary of this fairly well-established field. He concludes that most of the nearby galaxies have non-thermal emission from gas accretion onto a black hole of about a million solar masses at the centre. The other debated issue in the field is the relation between the bulge and the black hole. Ho surmises that a bulge is not necessary for the formation of a nuclear black hole.

The article by Soifer *et al.* gives the Spitzer view of the extragalactic universe. It showcases the detailed information obtained from the new Spitzer satellite which covers the far-IR bands. These are not accessible from the earth due to the extinction in the earth's atmosphere. Figure 9 showing a collage of galaxies brings out strikingly how the gas concentration can affect the appearance of the spiral arms in galaxies.

The article by Frieman *et al.* on the dark energy and the accelerating universe discusses this active subject, and describes the proposed observational probes such as the supernovae, galaxy clusters, and weak gravitational lenses that will try to explain this puzzle.

The autobiographical article by Dalgarno is an honest and interesting account of his journey from a school student in London during the Second World War, to the faculty position and then the Chairmanship at the Astronomy Department at the Harvard University.

Dalgarno served as the Editor of the *Astrophysical Journal Letters* for 29 years. He describes how the electronic submission and refereeing process (which is the norm now in most journals) was started in 1986. This was one of the first scientific journals to do so. Dalgarno describes views on the page limit for a 'letter', and how authors attempt to get past the page limit, and the whole issue being further confused by the typesetter who decides the final sizes of figures based on their legibility (quite correctly so)!

Looking at this issue of the *ARAA*, a trend which struck me is the decrease in the font size, if only to accommodate the enormous growth in the field. While this is understandable, I do miss the characteristic, easy-to-read font and the layout that has been associated from its beginning. On the other hand, the figures now have a contrast that was unmatched in the earlier editions. This helps brings out the subtle phenomenon being discussed, such as the fine filamentary structure of the Crab nebula mentioned above.

Given the uniformly high quality of the technical contents of the articles, this volume is strongly recommended. The high price of the volume will hopefully not be a deterrent for most readers who can access it through their institutional libraries, either as a hard copy or as an on-line version.

CHANDA JOG

Department of Physics,
Indian Institute of Science,
Bangalore 560 012, India
e-mail: cjjog@physics.iisc.ernet.in