
This part contains two articles. The first is a short and broad-ranging summary of supernovae, including a review of supernova explosion theories and a strong section on the controversial classification of individual supernova remnants as arising from the different types of supernovae (Type II, Type Ia and the newly recognized Type Ib). This article has a dated addendum on SN1987A. The second article is a summary on gamma-ray bursts which collects together the major observational results, especially from the Konus experiment on the Venera spacecraft, and includes not only the story of the remarkable optical transient GB790307 but also details of the 16 events from GBS0526−66 and the controversial optical flashes associated with this source, which is possibly (or, the authors think, probably not) in the supernova remnant N49 in the Large Magellanic Cloud.—**Paul Murdin.**


This section contains two articles, the first on nuclear processes in which the value of the Sun as a unique astrophysical laboratory is described and solar plasma diagnostics discussed, and the second which treats high-energy particle generation. These are valuable for the insight they give into current Soviet research in these areas.—**Ed.**


For its mere 121 small pages, the main chapter of this volume does a remarkably good job of presenting the main elements, both physical and mathematical, of some of the key aspects of plasma turbulence in the space and astrophysical context. Indeed, compared to the obscure, though pioneering, early volume by V. N. Tsytovich, this is a masterpiece of lucid explanation at least as good as the best works from the West for anyone wishing to come to terms with this difficult subject. Good astrophysical examples are also given. The second small chapter on the influence of plasma turbulence on atomic processes is quite lucid in what it covers but very restricted in scope compared to the extensive volumes by H. Griem, for example. Compared to the quality of the text, the figures are very poor both visually and technically.—**J. C. Brown.**


One of the problems in trying to understand theories of the early Universe is that it requires a broad knowledge of both cosmology and particle physics. Thus people who are well grounded in cosmology may not have the necessary background in particle physics, while particle physicists may not have the necessary knowledge of cosmology. This often makes it difficult to appreciate the exciting developments in the field at more than a superficial level. *The Primeval Universe* is ideal for somebody in this position. Although much of it would be rather demanding for the layman (if only because of the equations), it provides a much deeper account of the issues than is available in popular presentations. It is not technical enough to recommend as a graduate text but it would be ideal preparation for someone about to commence such a course. Undergraduates would also profit from it.