Record Nr. UNINA9910812475103321 Autore Aharonian Felix A Titolo Very high energy cosmic gamma radiation: a crucial window on the extreme universe / / F.A. Aharonian Singapore: ; London, : World Scientific, c2004 Pubbl/distr/stampa **ISBN** 1-281-87201-6 9786611872014 981-256-173-0 Edizione [1st ed.] Descrizione fisica 1 online resource (508 p.) Disciplina 522.6 522.6862 Soggetti Cosmic rays Gamma ray astronomy Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Includes bibliographical references (p. 473-491) and index. Nota di bibliografia Copyright; Preface; Contents; 1 - Introduction; 2 - Status of the Field; 3 Nota di contenuto - Gamma Ray Production and Absorption Mechanisms; 4 - Gamma Rays and Origin of Galactic Cosmic Rays; 5 - Gamma Ray Visibility of Supernova Remnants; 6 - Pulsars, Pulsar Winds, Plerions; 7 - Gamma Rays Expected from Microguasars; 8 - Large Scale Jets of Radio Galaxies and Quasars; 9 - Nonthermal Phenomena in Clusters of Galaxies; 10 - TeV Blazers and Cosmic Background Radiation; 11 -High Energy Gamma Rays - Carriers of Unique Cosmological Information; Appendix A - Spherically symmetric diffusion from a single source Appendix B - Evolution of relativistic electronics in an expanding magnetised mediumBibliography; Index Sommario/riassunto Gamma ray astronomy, the branch of high energy astrophysics that studies the sky in energetic ?-ray photons, is destined to play a crucial role in the exploration of nonthermal phenomena in the Universe in their most extreme and violent forms. The great potential of this discipline offers impressive coverage of many "hot topics" of modern astrophysics and cosmology, such as the origin of galactic and

extragalactic cosmic rays, particle acceleration and radiation processes

under extreme astrophysical conditions, and the search for dark
matter.