

Three decades of High Energy Transients

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Gamma-Ray Bursts are the most brilliant explosions in space. The first GRB was discovered on 1967, just over 40 years ago. It took several years and multiple generations of space and ground instruments to unravel some of the mysteries of this phenomenon. However, many questions remain open today. I will discuss the history, evolution and current status of the GRB field and its contributions in our understanding of the transient high energy sky. Finally, I will describe how GRBs can be utilized in future missions as tools, to probe the cosmic chemical evolution of the Universe

Magnetars are magnetically powered rotating neutron stars with extreme magnetic fields (over 10^{14} Gauss). They were discovered in the X- and gamma-rays where they predominantly emit their radiation. Very few sources (roughly 24) have been found since their discovery in 1987. NASA's Fermi Gamma-ray Space Telescope was launched June 11, 2009; since then the Fermi Gamma-ray Burst Monitor (GBM) recorded emission from several magnetar sources. In total, six new sources were discovered between 2008 and 2011, with a synergy between Swift, RXTE, Fermi and the Interplanetary Network (IPN). I will give a short history of magnetars and describe how this, once relatively esoteric field, has emerged as a link between several astrophysical areas including Gamma-Ray Bursts.