

Gamma Ray Burst Discoveries with the Swift Mission

Neil Gehrels
NASA/GSFC

Gamma-ray bursts are among the most fascinating occurrences in the cosmos. They are thought to be the birth cries of black holes throughout the universe. There has been significant recent progress in our understanding of bursts with the new data from the Swift mission. Swift was launched in November 2004 and is an international multiwavelength observatory designed to determine the origin of bursts and use them to probe the early Universe. The first year of findings from the mission will be presented. A huge step forward has been made in our understanding of the mysterious short GRBs. High redshift bursts have been detected from enormous explosions early in the universe. GRBs have been found with giant X-ray flares occurring in their afterglow. These, and other topics, will be discussed.