

GECAM observations of the extremely bright gamma-ray bursts

Gamma-Ray Burst (GRB) is the most energetic explosive event in the universe. Some GRBs are likely associated with gravitational wave (GW) or high energy neutrino (HEN) event, thus they are the promising target in the multi-messenger era. Gravitational wave high-energy Electromagnetic Counterpart All-sky Monitor (GECAM) is an x-ray and gamma-ray telescope constellation composed of four instruments on different spacecrafts, dedicated to observe the GRBs, especially those associated with GW and HEN. Thanks to its novel designs, GECAM has accurately detected two extremely bright GRBs, GRB 221009A and GRB 230307A, while many other telescopes suffered instrumental effects owing to the exceptional brightness. In this talk I will present the discoveries of these historical events, with implications on the GRB physics. I will also briefly summarize the recent progress of the high energy space missions in China, which have been or will be playing an important role in the high energy transient observation in the multi-messenger era.

Primary author: XIONG, Shaolin (Institute of High Energy Physics, CAS)

Presenter: XIONG, Shaolin (Institute of High Energy Physics, CAS)