Gamma-ray burst in the pre and post INTEGRAL Era

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Abstract

One of the main goals of INTEGRAL was to decipher the origin and nature of short bright flashes of gamma-rays known as gamma-ray bursts (GRBs). Discovered in the late 60s, the field of GRBs started to gain massive attention during the 90s as more events were being discovered and their locations in the sky kept improving. This eventually led to the first association of a GRB with the death of a massive star in 1998. With the launch of INTEGRAL and subsequently other high-energy missions in the early 00s, the GRB field experienced a massive revolution thanks to the wealth of new data provided by these new missions, including in-depth studies of a low-luminosity population of GRBs or the first prompt emission polarimetry measurements. The participation of INTEGRAL in the discovery in 2017 of the first GRB associated with a gravitational wave, proving the nature of short GRBs, served as the perfect way for INTEGRAL to provide a one last impactful contribution to the GRB field. This talk will journey through the evolution of the GRB field since INTEGRAL's launch and peak into the new post-INTEGRAL GRB Era..

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