

Celebrating 20 years of Swift Discoveries



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GRB 241030A and its Super-Flare

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Over the last 20 years, the Neil Gehrels Swift Observatory has provided an unprecedented multiwavelength view into the origins and properties of gamma-ray bursts (GRBs). Even after having observed over 1,500 bursts, Swift continues to detect GRBs with intriguing and unique behaviors. Here we present the long GRB 241030A (at redshift $z=1.4$) which displayed a “super-flare”, with $\sim 4\times$ the fluence of the prompt emission observed by the BAT, rapid spectral variability on timescales of tens of seconds, and a temporal evolution of the peak energy. We will discuss the implications of these findings in the context of GRB emission mechanisms and their broader impact on understanding the physics of relativistic jets.

Authors: CENKO, Brad (NASA Goddard Space Flight Center); KLINGLER, Noel (NASA-GSFC / UMBC / CRESST II); Mr SHILLING, Sam (Lancaster University)

Presenter: KLINGLER, Noel (NASA-GSFC / UMBC / CRESST II)

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