

Celebrating 20 years of Swift Discoveries



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Automated optical follow-up of Swift GRBs with Palomar-60 inch telescope

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The Palomar 60-inch (1.5 metre) telescope, P60, conducted an automated optical GRB follow-up programme from 2005 to 2017. P60 was able to respond automatically, in less than three minutes, to well-localised Swift GRB alerts, and it was one of the largest optical telescopes with such a programme. The automatic response to the alerts built an unbiased GRB afterglow sample, making it a valuable tool for investigating the entirety of the GRB population. This talk presents results from the first analysis of the full 13-year long sample of GRB afterglows observed within one hour of Swift trigger, including the investigation into decay and spectral parameters of P60 afterglows, as well as their time-dependent optical luminosity function. The full dataset, along with data from other facilities, will be used to characterize GRB jet properties, such as energy ranges or opening angles, as well as the true rates of relativistic jets.

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