

Temporal resolution of transient sources with LST-1: application to BL Lacertae.

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Abstract

The capability of LST-1 to probe the rapid variability emission of fast gamma-ray flares produced by BL Lacertae is studied. We use a dedicated algorithm developed for very-high-energy transient sources to retrieve the minimum time-binning of the light curve considering the detection of the source above a given statistical significance level. Our results show that the LST-1 can achieve a temporal resolution shorter than one minute with a statistical significance of at least 3σ for bright flares as the one produced by BL Lacertae in August 2021.

My poster is available at <https://doi.org/10.5281/zenodo.7042520>