

# The Observation of the Brightest GRB 221009A by LHAASO

*Sunday, 25 June 2023 10:05 (35 minutes)*

LHAASO observed GRB221009A, as the brightest GRB, with it nearly in the middle of the FoV. The onset of the afterglow in TeV band was first time observed by measuring the flux from the GRB since T<sub>0</sub> set by a precursor. This enables 1) Determining the start time of the afterglow T\* ~ 226 s after T<sub>0</sub>; 2) Setting the most strict limit on the prompt emission in TeV band ~ 10<sup>-5</sup>; 3) Estimating the initial bulk Lorentz factor  $\Gamma_0$  of the ejecta ~ 440; 4) Measuring the jet break shortly after the onset indicating a narrow jet structure observed ever; 5) Further investigations for more GRB features, including the most energetic photons.

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