

Search for TeV burst-like events coincident with the BATSE bursts using the Tibet air shower array data

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Abstract. Our study is made for a search for TeV counterparts to GRBs observed by BATSE using the Tibet II/HD air-shower data set. Analysed Tibet data are taken during the period October 1995 through September 1999. BATSE detected 67 GRBs within the field of view of Tibet array during this period. Six kinds of time durations, 5, 10, 20, 30, 40 and 50 sec just after BATSE trigger, are employed for the examination. GRB971115a is found to be the most promi-

nent GRB having Power value of 6.05. The probability that Power value is greater than 6.05 is occurred by the statistical fluctuation is estimated by Monte Carlo simulation, and was found to be 2×10^{-1} . Therefore, such Power value can be understood as consistent with statistical fluctuation. So, no clearly significant TeV gamma-ray bursts of employed time durations were detected from our analysis of Tibet II data set.