

Comparison of TOF techniques in high-energy gamma-ray telescopes

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The application of the coordinate compensation method was examined for the detectors of the time-of-flight system in the high energy gamma ray telescope. The passage of gamma rays with an energy of 1000 GeV through a converter-tracker and through the time-of-flight system was simulated for the typical telescope. Three options of the time-of-flight system were considered with using the coordinate compensation method in the start-detector and in the stop-detector(both detectors used this method, both detectors didn't use it, the start-detector used this method and the stop-detector didn't use it). For all options were calculated the time-of-flight spectra for the secondary charged particles arising in the converter-tracker of the high energy gamma ray telescope and passing through the time-of-flight system. It was shown that the coordinate compensation method is impractical in the stop-detector.

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Section talk (10+5 min)

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