

Alternative digital filter for LumiCal (TestBeam2016)

Nowadays two linear electron-positron colliders (CLIC and ILC) are being prepared for construction. The main task of which will be detailed investigations of the physics within and beyond the Standard Model. The FCAL collaboration is testing prototype detectors for the new linear e+e- colliders. One of the forward region detectors is the electromagnetic calorimeter LumiCal. Currently, the processing of 2016 data collected from a test beam is coming to a logical conclusion. The standard method of digital filtering is fitting the time scan of the channel and determining the fitted function maximum. In my report, I would like to discuss an alternative scheme of digital signal filtering developed in JINR, the main advantages of which are: stability, resource efficiency, feasibility for hardware implementation.

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