



ALICE

New ALICE

Fast Interaction Trigger



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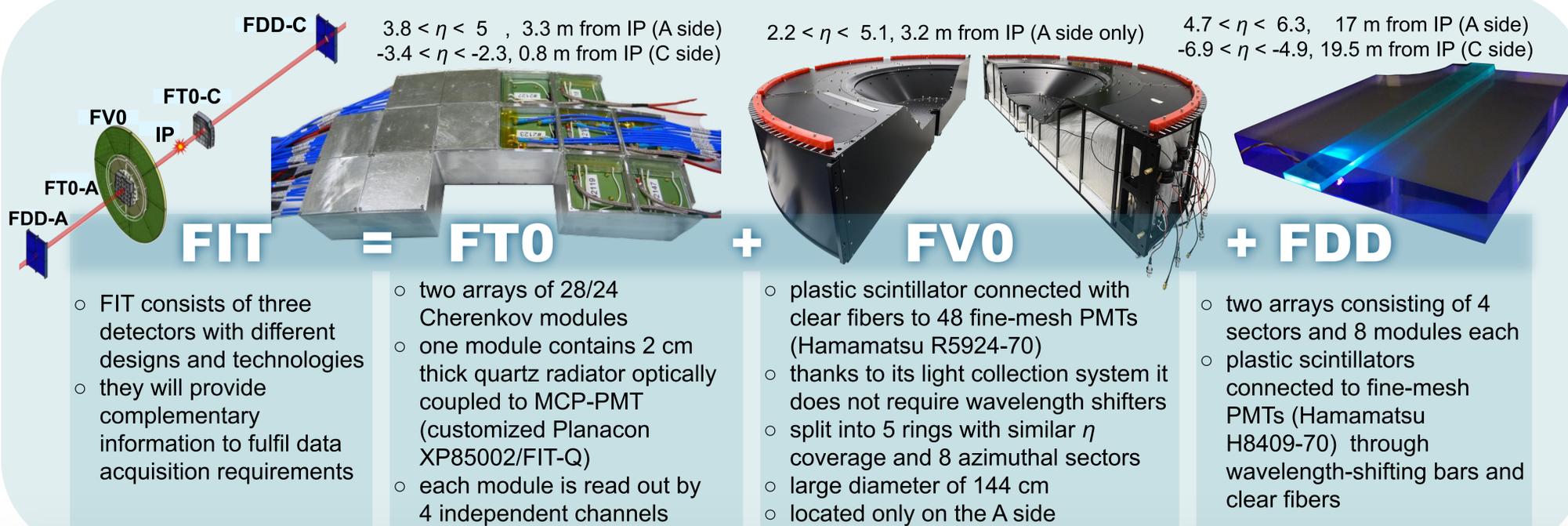
The **Fast Interaction Trigger (FIT)** is a set of **forward** detectors which will be used in LHC Run 3 and Run 4 for **triggering**, **beam monitoring** and determination of **centrality**, **event plane** and **collision time**.

Motivation

The ALICE experiment is dedicated to study properties of hot and dense nuclear matter produced in high energy nuclear collisions. The detector is undergoing a major upgrade during the LHC second long shutdown (LS2). ALICE is being prepared to collect data at increased interaction rates of 50 kHz in Pb–Pb and 1 MHz in pp. To make this possible, most of the ALICE detectors will operate in continuous read-out mode, which requires online event selection with fast and efficient forward detectors.

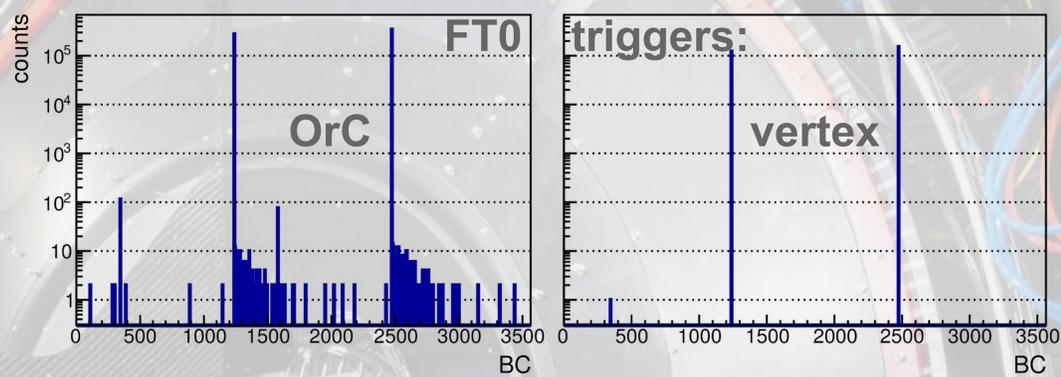
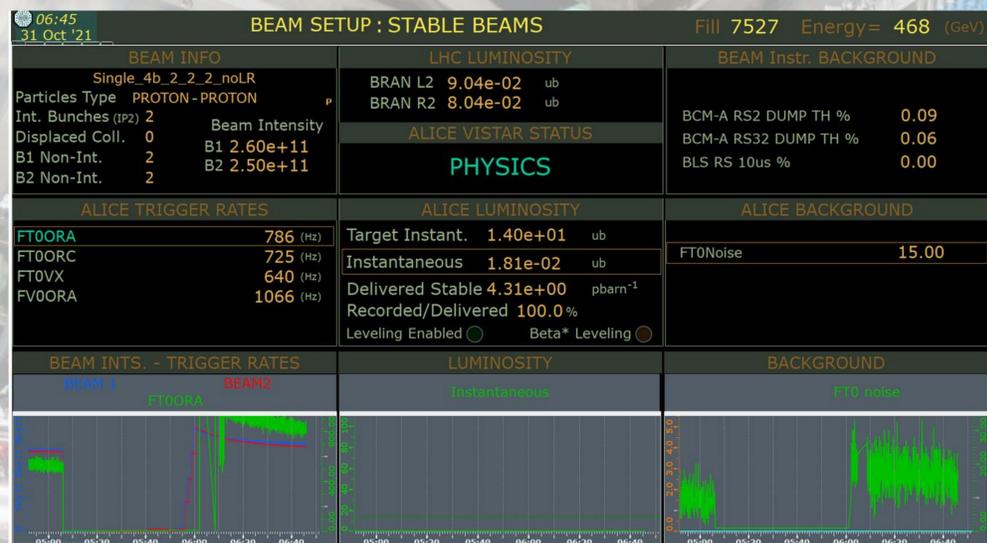
Tasks

- luminosity and beam-induced background monitoring
- triggering:
 - minimum bias trigger
 - centrality/multiplicity selection
 - online vertex determination
 - beam-induced background rejection
 - veto flag for ultraperipheral collisions
- centrality and event plane determination
- collision time measurement

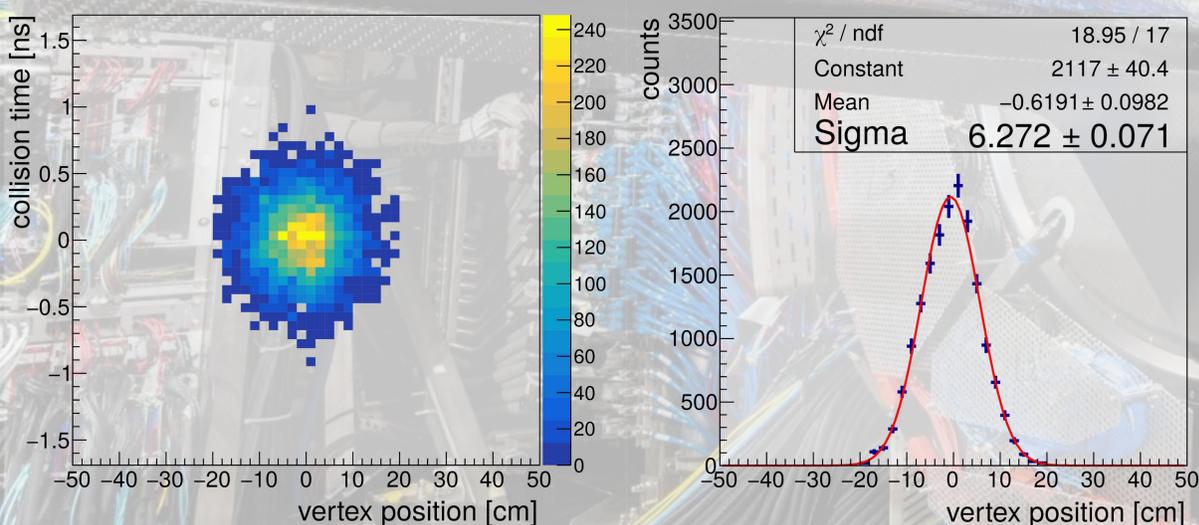


Results from the first pilot beam

LHC luminosity and background monitoring and suppression with FT0



FT0 collision time and vertex



FV0 integrated charge

