ENSAR2 workshop: GEANT4 in nuclear physics







Type: Oral

A Monte Carlo based method for fine calibration of Si Telescopes.

Wednesday 24 April 2019 14:50 (20 minutes)

In order to fully explore the particle identification and measurement capability of the telescopes built from two or more silicon strip detectors, one has to calculate all the dead layers of the detectors as well as the calibration coefficients for each channel. The most reliable way of solving this problem is to combine various measurements with calibration sources and detailed Monte Carlo simulations. Such a technique developed in the ACCULINNA-2 group in Flerov Lab in JINR will be presented. The technique allows for a pixelwise analysis of active and dead layers. The pixel can be defined as an arbitrary combination of two mutually perpendicular strips belonging to any detectors in the telescope. The results including achieved accuracy and stability will be reported. Data quality issues will be discussed as well.

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Session Classification: Detector simulation

Track Classification: Detector simulation