

Study of the cosmic data taken with the ALICE TOF detector at the LHC

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The commissioning of the Time-of-Flight (TOF) detector of ALICE has been carried out and the apparatus is presently fully operational. With a high-statistics calibration the detector is expected to provide pi/K and K/p identification up to a momentum of 2.5 GeV/c and 4.0 GeV/c respectively for charged particles.

The Multigap Resistive Plate Chambers (MRPC) are the base element of ALICE TOF detector, that is composed of 18 “supermodules”, each containing 1638 MRPC strips. Each strip has two rows of 48 pads.

A study of the pad clusters has been carried out: when a ionizing particle crosses the sensitive volume of the chambers, a set of neighbouring pads can catch a fraction of the avalanche charge.

The possibility to profit from this effect, in terms of time and geometric resolution, will be reported. Moreover a study of the cosmic muons distribution in the ALICE pit will be also shown.

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