

The MRPC-based ALICE Time-Of-Flight detector: status and performance

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The large Time-Of-Flight (TOF) array is one of the main detectors devoted to charged hadron identification in the mid-rapidity region of the ALICE experiment at the LHC; it will allow separation among pions, kaons and protons up to few GeV/c, covering the full azimuthal angle and $-0.9 < \eta < 0.9$. The TOF exploits the innovative MRPC technology capable of an intrinsic time resolution better than 50 ps with an overall efficiency close to 100% and a large operation plateau; the full array consists of 1593 MRPC chambers covering a cylindrical surface of around 150 m².

The TOF detector is efficiently taking data since the first pp collisions recorded in ALICE in December 2009. In this report, the status of the TOF detector and the performance achieved both with pp and PbPb collisions are shown.

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