TIME OF FLIGHT SYSTEM OF THE MPD

Rumiantcev M.M. on the behalf of the MPD collaboration
Joint Institute for Nuclear Research, Dubna, Russia
E-mail: mikhail.rumyantsev@yandex.ru

The TOF system of MPD is the main detector for particles identification. In order to separate pions from kaons in the momentum range 0–2.5 GeV/c and protons from kaons in the range 0–4.5 GeV/c it should have time resolution better than 100 ps. The TOF system consists of a barrel with RPC detectors having the radius of 1,5 m and the surface of about 50 m^2 and covering the region $|\eta|<1.4$ and two End caps which cover the region $1.5 < |\eta| < 2$. A RPC has the active area of 600 x 300 mm^2 and strip readout.

The start signal is given by stations of Cherenkov quartz counters (FFD - Fast Forward Detector). The FFD consists of two sub-detectors FFDL and FFDR, arranged as arrays of modules and situated near the beam pipe at a distance of 75 cm to the left and to the right from the interaction region. Each sub-detector array has a hole for the beam pipe and a pseudorapidity acceptance of $2.3 < |\eta| <3.1$.