

Measurement of $dN_{ch}/d\eta$ with the ALICE VZERO detector in central Pb-Pb collisions at 2.76 TeV

ALICE (A Large Ion Collider Experiment) is the LHC experiment dedicated to the study of heavy-ion collisions. The aim of ALICE is to study the properties of a state of deconfined nuclear matter, the Quark Gluon Plasma (QGP), which lattice QCD predicts to be created at the extreme temperatures and energy densities accessible in such collisions. The VZERO detector, made of scintillator hodoscopes on both sides of the interaction point, is covering the rapidity ranges $2.8 < \eta < 5.1$ and $-3.7 < \eta < -1.7$. These pseudo-rapidity ranges rely on the nominal interaction point position. Thanks to the de-bunching effect of the LHC Pb beams, the VZERO is able to measure the charged particles multiplicity in a large range of pseudo-rapidity ($0.7 < |\eta| < 5.2$). In this poster, the detector and the analysis methods are described. The corresponding results of $dN_{ch}/d\eta$ measurements are presented.

Primary author: GUILBAUD, Maxime Rene Joseph (Institut de Physique Nucleaire de Lyon (IPNL)-Universite Claude)

Presenter: GUILBAUD, Maxime Rene Joseph (Institut de Physique Nucleaire de Lyon (IPNL)-Universite Claude)

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