

The CBM ECAL

Wednesday, 12 October 2016 16:30 (15)

We present the design and performance of the Electromagnetic Calorimeter (ECAL) of the Compressed Baryonic Matter (CBM) Experiment at FAIR. The main purpose of the ECAL detector is the identification and the measurement of energy and position of photons and electrons, which are produced in high-energy heavy-ion collisions in the beam energy range from 4 to 40 AGeV. ECAL will measure spectra of photons and neutral mesons decaying in their photonic decay channels. Precise measurement of masses and widths of short-living mesons (ω , η , η' , ϕ , χ_c etc.) will shed light on the chiral symmetry restoration which is expected to occur in dense nuclear matter. Measurements of the π^0 and eta meson spectrum are important to study dependence of the particle yield on thermodynamical parameters of nuclear matter.

Primary author(s) : KOROLKO, ivan (ITEP)

Co-author(s) : Dr. PROKUDIN, Mikhail (Institute for Theoretical and Experimental Physics); Prof. ZAITSEV, Yuri (ITEP)

Presenter(s) : KOROLKO, ivan (ITEP)

Session Classification : Methods of experimental physics - parallel III

Track Classification : Methods of experimental physics