

**Seminarium Zakładu Energetyki Jądrowej i Analiz Środowiska (UZ3)
Departament Badań Układów Złożonych (DUZ)**

Wtorek: 23.10.2018, 11:30

PNT-NCBJ, sala 251 (PROTON)

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MCORD - MPD Cosmic Ray Detector for NICA

Abstract:

Multi-Purpose Detector (MPD) is a part of Nuclotron-based Ion Collider Facility (NICA) located in Dubna, Russia. For full functionality, the MPD needs an additional trigger system for off-beam calibration of MPD subdetectors and for rejection of cosmic ray particles (mainly muons). The system could also be useful for astrophysics observations of cosmic showers initiated by high energy primary particles. The consortium NICA-PL comprised of several Polish scientific institutions has been formed to define goals and basic assumptions for MPD Cosmic Ray Detector (MCORD). This article describes the early stage design of the MCORD detector based on plastic scintillators with silicon photomultiplier photodetectors for scintillation readout and electronic system based on MicroTCA crate. Plans for simulations of MCORD detector performance are also presented.

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