Contribution ID: 242 Type: not specified

TPC status of MPD/NICA

Friday, 24 September 2021 17:55 (5 minutes)

In frame of the JINR scientific program on study dense baryonic matter a new accelerator complex the Nuclotron-based Ion Collider fAcility (NICA) is under realization at the Joint Institute for Nuclear Research (Dubna, Russia) [1]. Two interaction points are foreseen at NICA for two detectors. One of these detectors, the Multi-Purpose Detector (MPD), is optimized for investigations of heavy-ion collisions [2].

The MPD - 4π detector is a spectrometer capable of detecting charged hadrons, electrons, and photons produced by heavy ion collisions at high luminosity in the energy range of the NICA collider.

The Time-Projection Chamber (TPC) is the main tracking device in the MPD central barrel for 3-dimensional tracking charge particles and particle identification [3-5].

In the poster report presents current status of the basic design parameters of the TPC and the basic TPC configuration, and also status of something its systems.

References:

- 1. Web site: < nica.jinr.ru>.
- 2. Web site: < mpd.jinr.ru>.
- 3. A. Averyanov at al., Jour. of Instr. 15, No. 07, C07017:1-11 (2020).
- 4. S. Vereschagin at al., Nucl. Instr. and Meth. in Phys. Res. Section A 958, 162793 (2020).
- 5. A. Averyanov at al., Phys. of Part. and Nucl. 49, 746-752 (2018).

Primary author: BAZHAZHIN, Aleksey (Joint Institute for Nuclear Research (JINR))

Co-authors: Mr MOVCHAN, Sergey (Joint Institute for Nuclear Research (JINR)); Mr LUKSTINS, Juris (Joint Institute for Nuclear Research (JINR)); Mr RAZIN, Stepan (Joint Institute for Nuclear Research (JINR)); Mr SAM-SONOV, Vyacheslav (Joint Institute for Nuclear Research (JINR)); Mr ZAPOROZHETS, Sergey (Joint Institute for Nuclear Research (JINR)); Mr VERESCHA-GIN, Stepan (Joint Institute for Nuclear Research (JINR)); Mr FATEEV, Oleg (Joint Institute for Nuclear Research (JINR)); Mr ZRUEV, Vladislav (Joint Institute for Nuclear Research (JINR)); Mr RIBAKOV, Alexandr (Joint Institute for Nuclear Research (JINR)); Mr CHEPURNOV, Viktor (Joint Institute for Nuclear Research (JINR)); Mr CHEPURNOV, Vladislav (Joint Institute for Nuclear Research (JINR)); Mr CHEPURNOV, Vladislav (Joint Institute for Nuclear Research (JINR)); Mr BALASHOV, Igor (Joint Institute for Nuclear Research (JINR)); Mr MAKAROV, Alexandr (Joint Institute for Nuclear Research (JINR)); Mr MAKAROV, Alexandr (Joint Institute for Nuclear Research (JINR))

Presenter: BAZHAZHIN, Aleksey (Joint Institute for Nuclear Research (JINR))

Session Classification: Poster session

Track Classification: Section 3. Modern nuclear physics methods and technologies.