



Contribution ID: 39

Type: **not specified**

Fast data-driven readout system for the wide aperture Silicon Tracking System of NICA-BM@N experiment

Friday, 23 October 2020 10:40 (25 minutes)

RFBR grant 18-02-40047

BM@N experiment at Nuclotron is currently being upgraded in order to study the high-density nuclear equation-of-state in collisions between gold nuclei at beam energies 2–4.5 AGeV. The measurement of high-multiplicity events at interaction rates up to 5 MHz requires the installation of four new tracking stations equipped with double-sided micro-strip silicon sensors, which have been developed for the CBM experiment at FAIR. Silicon Tracking System will comprise ~600 k channels with fast data driven readout electronics. Data acquisition system for the Silicon Tracking System of BM@N experiment should approve a new principle of data acquisition in a data driven mode, which will be used later in CBM. However, it should also operate with a trigger signal, provided by the trigger system of BM@N experiment. For this task a readout system, which is capable to work both in trigger and self-trigger modes and is adopted for the requirements of BM@N experiment, is developing in a close collaboration with CBM group.

Primary author: DEMENTEV, Dmitrii (JINR LHEP)

Presenters: VORONIN, Alexander (SINP, Moscow); DEMENTEV, Dmitrii (JINR LHEP)

Session Classification: Development of detectors and detection methods for NICA experiments