

\_logo\_small.jpg

/opt/indico/archive/2016/C8/40222322483

Contribution ID : 43

Type : **Contributed Oral**

## Front-End Electronics development status for TPC detector of MPD/NICA project

*Friday, 3 March 2017 10:00 (0:20)*

### Content

The TPC is placed in the center of a Multi Purpose Detector comprising the interaction point of colliding beams together with other central detectors that provides the recovery and identification of charged particle tracks in the pseudorapidity's range  $|\eta| \leq 1.2$  in future NICA collider experiments. The readout system is one of the most complex parts of the TPC. The electronics of each readout chambers is an independent system. The whole system contains 95232 channels, 1488 64-ch. front-end cards (FEC), 24 readout control units (RCU). The front-end electronics (FEE) based on modern ASICs, FPGA and high-speed serial links. Development status, measurement results and possible design improvements of the TPC front-end electronics presented.

### Summary

**Primary author(s) :** Mr. VERESCHAGIN, Stepan (Joint Institute for Nuclear Research)

**Presenter(s) :** Mr. VERESCHAGIN, Stepan (Joint Institute for Nuclear Research)

**Session Classification :** Electronics, Trigger and Data Acquisition

**Track Classification :** Electronics, Trigger and Data Acquisition