



Contribution ID: 116

Type: **Sectional**

## The development of Online Event Display using ATLAS TDAQ for the NICA experiments

*Thursday, September 28, 2017 12:30 PM (15 minutes)*

One of the problems to be solved in high energy physics experiments on particle collisions and fixed target experiments is online visual presentation of the events during the experiment run. The report describes the implementation of this task, so called Online Event Display, for the current BM@N experiment and the future experiment MPD (Multi-Purpose Detector) at the Nuclotron-based Ion Collider facility (NICA) under construction at the Joint Institute for Nuclear Research. One of the main aspects of the development, which will be shown in the presentation, is the integration of ATLAS TDAQ components to transfer raw event data for visualization in the Online Event Display. The report includes brief description of these TDAQ components. Another important issue that will be discussed is dedicated to speeding up the track reconstruction to increase the number of the events viewed in the monitoring system per second. The implemented event display designed for use in offline and online modes with its options and features as well as integration with our software environments (BmnRoot and MpdRoot) are considered. The examples of graphical representation of simulated and reconstructed points and particle tracks with BM@N and MPD geometries will be shown for collisions with different energies and particles, such as deuterons, carbons and gold ions.

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**Session Classification:** Triggering, Data Acquisition, Control Systems

**Track Classification:** Computing for Large Scale Facilities (LHC, FAIR, NICA, SKA, PIC, XFEL, ELI, etc.)