

Contribution ID: 629 Contribution code: **contribution ID 629**Type: **Poster**

Event Metadata System for the Experiments of the NICA Complex

NICA (Nuclotron-based Ion Collider fAcility) is a new accelerator complex, which is under construction at the Joint Institute for Nuclear Research in Dubna to study properties of dense baryonic matter. The experiments of the NICA projects have already generated and obtained substantial volumes of event data, and it is expected that the overall number of stored events will increase from the current value of hundreds of millions to several billion events per year. The developed Event Metadata System is required to store and index experimental event records obtained at NICA facilities, allowing to quickly search for only necessary events based on various criteria for further processing and physics analyses. The main aim of the information system that is being described is to speed up desired physics analyses and data quality checks. In addition, it allows reducing the load of the NICA computing networks. The Event Metadata System, which is presented in the report, is integrated with other experimental systems and software, in particular, NICA software frameworks and implemented Condition Database. An access and management of the event metadata in the Event Catalogue being used to select only events for particular physics analysis is provided via several interfaces, such as REST API, Web UI, and a dedicated C++/ROOT interface. The detailed architecture of the system and developed services including its monitoring are also presented.

Significance

References

Speaker time zone

No preference

Primary authors: KLIMAI, Peter (Moscow Institute of Physics and Technology (MIPT)); GERTSENBERGER, Konstantin (JINR); ALEXANDROV, Evgeny (Joint Institute for Nuclear Research (RU)); ALEXANDROV, Igor (Joint Institute for Nuclear Research (RU)); YAKOVLEV, Alexander (Joint Institute for Nuclear Research (RU)); FILOZOVA, Irina (Joint Institute for Nuclear Research (RU)); CHEBOTOV, Alexander; DEGTYAREV, Artyom

Presenter: KLIMAI, Peter (Moscow Institute of Physics and Technology (MIPT))

Session Classification: Posters: Crystal

Track Classification: Track 1: Computing Technology for Physics Research