

11th International Conference "Distributed Computing and Grid Technologies in Science and Education" (GRID'2025)



Contribution ID: 516

Type: **Sectional talk**

Software for future BINP HEP experiments

Tuesday 8 July 2025 17:45 (15 minutes)

Budker Institute of Nuclear Physics has several prospects on future experiments. Ranging from large complexes such as well known Super Charm-Tau (SCT) factory, or recent project of the detector and VEPP-6 accelerator (there is no official name for the detector yet), to small setups for detector studies.

The project of the VEPP-6 is similar to Super Charm-Tau factory. It is a high-luminosity electron-positron collider, but it is planned to work at lower energies and dedicated for studies of strange and charmed hadrons.

The project implies single collision point equipped with a universal particle detector. The Aurora software framework, being developed for the SCT detector, now is in process of separation to framework and detector specific parts.

It is based on trusted and widely used in high energy physics software packages, such as Gaudi, Geant4, and ROOT. At the same time, new ideas and developments are employed, in particular the Aurora project uses DD4hep for geometry description and PODIO for data storage.

There will be presented next release of the Aurora framework, its core technologies, structure and roadmap for the near future.

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Session Classification: Computing for MegaScience Projects