



Contribution ID: 57

Type: Plenary reports

## Offline Software and Computing for the SPD experiment

*Thursday, 8 July 2021 11:00 (45 minutes)*

The SPD (Spin Physics Detector) is a planned spin physics experiment in the second interaction point of the NICA collider that is under construction at JINR. The main goal of the experiment is the test of basic of the QCD via the study of the polarized structure of the nucleon and spin-related phenomena in the collision of longitudinally and transversely polarized protons and deuterons at the center-of-mass energy up to 27 GeV and luminosity up to  $10^{32} \text{ cm}^{-2} \text{ s}^{-1}$ . The data rate at the maximum design luminosity is expected to reach 0.2 Tbit/s. Current approaches to SPD computing and offline software will be presented. The plan of the computing and software R&D in the scope of the SPD TDR preparation will be discussed.

### Summary

**Primary authors:** GALOYAN, Aida (Veksler and Baldin Laboratory of High Energy Physics); VERKHEEV, Alexander (JINR); GRIBOWSKY, Alexandr; ZHEMCHUGOV, Alexey (JINR); NIKOLSKAIA, Anastasiia; MALTSEV, Andrei (JINR); BELOVA, Anna (Dzhelepov Laboratory of Nuclear Problems); PETROSYAN, Artem (JINR); TKACHENKO, Artur (JINR); OLEYNIK, Danila (JINR LIT); Dr MALETIC, Dimitrije (Institute of Physics, University of Belgrade); SHCHAVELEV, Egor (Saint Petersburg State University); REZVAYA, Ekaterina; OSOSKOV, Gennady (Joint Institute for Nuclear Research); GOLOVANOV, Georgy (JINR); GONCHAROV, Pavel (Sukhoi State Technical University of Gomel, Gomel, Belarus); GERASSIMOV, Sergei (Technische Universität München, Lebedev Physical Institute); ANDREEV, Vladimir (LPI, Moscow); UZHINSKY, Vladimir (LIT, JINR)

**Presenter:** ZHEMCHUGOV, Alexey (JINR)

**Session Classification:** Plenary reports

**Track Classification:** 3. Computing for MegaScience Projects