

Notes on possible physical experiments on SPD and BM@N detectors of the Nuclotron-NICA accelerator complex

Saturday 17 October 2020 14:10 (25 minutes)

The SPD and BM@N detectors of the Nuclotron-NICA accelerator complex at JINR are designed to operate at relatively high luminosities, which potentially significantly expands their physical program. The presented report is intended to stimulate the development of models and the development of experiments that are adequate to these capabilities. The report discusses the influence of polarization on the properties of nuclear matter at high baryon density and moderate temperature. In particular, we discuss the relationship between the role of diquarks in cold and dense matter and possible polarization effects in hyperon cross-section ratios, as well as the manifestation of spin effects in kinematically cooled nuclear matter.

Primary author: Dr STAVINSKIY, Alexey (NRC "Kurchatov Institut"-ITEP)

Presenter: Dr STAVINSKIY, Alexey (NRC "Kurchatov Institut"-ITEP)

Session Classification: Section 4. Relativistic nuclear physics, elementary particle physics and high-energy physics

Track Classification: Section 4. Relativistic nuclear physics, elementary particle physics and high-energy physics.