

Nucleon spin physics: present and near future

Friday, 20 October 2017 11:10 (40 minutes)

In the talk the following subjects will be tackled: basics of the spin-dependent deep inelastic scattering; status of spin-dependent parton distribution measurements and of tomographic imaging of the nucleon; need of higher energies and higher luminosities; features of the planned Electron-Ion Collider and its detectors; possible new phenomena in the now-unexplored kinematic regime reached by EIC.

Electron-Ion Collider, a planned new machine to be located in the USA (BNL or JLab), will start operation about 2028. Collision centre-of-mass energy will be of the order of that at HERA but polarisation of electron, proton and light-ion beams, wide variety of heavy-ion beams, up to 1000 times increase in luminosity and wide energy variability will greatly exceed the capabilities of HERA.

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