
SEMINAR FIZIČKOG ODSJEKA

Vrijeme: utorak, 17. 11. 2009., 14:15 sati (točno)

Mjesto: Fizički odsjek, Bijenička c. 32, predavaonica F08

Forward Particle Production at RHIC

Les Bland

STAR Collaboration, Brookhaven National Laboratory, USA

The Relativistic Heavy Ion Collider (RHIC) at Brookhaven National Laboratory is unique in its capability of colliding heavy-ion beams, light ion beams on heavy-ion beams and polarized proton beams at large center-of-mass energy ($\sqrt{s}=200$ GeV). There are particularly interesting aspects of these capabilities revealed by experiments focusing on forward particle production. In particular, large spin effects have been observed for forward particle production in polarized proton collisions that may reveal how the proton gets its spin from its quarks, antiquarks and gluons. Forward particle production in the direction of the deuteron beam may establish if the gluon density in a heavy nucleus saturates for low-momentum gluons. Production of charmonium in the forward direction may provide insights into heavy-quark components of the proton.

his talk will present results from recent forward particle production experiments and plans for the future.

Voditelj seminara FO

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