



Contribution ID: 187

Type: **Oral Presentation**

## NICA @ JINR

*Friday, 17 August 2012 16:30 (20 minutes)*

Scientific program of NICA (Nuclotron-based Ion Collider fAcility) is now under realization phase at JINR (Dubna). The main goal of the program is an experimental study of hot and dense strongly interacting matter in heavy ion collisions at nucleon-nucleon centre-of-mass energies of 4-11 GeV and at average luminosity of  $10E27 \text{ cm}^{-2}\text{s}^{-1}$  for Au (79+) in the collider mode. In parallel, fixed target experiments at the upgraded JINR superconducting synchrotron Nuclotron are carried out with the extracted beams of various nuclei species up to gold with the momenta up to 13 GeV/c for protons. The program also foresees a study of spin physics with extracted and colliding beams of polarized deuterons and protons at the centre-of-mass energies up to 26 GeV for proton collisions. The proposed program allows to search for possible signs of the mixed phase and critical endpoint, and to shed more light on the problem of nucleon spin structure. General design and construction status of the complex is presented.

**Primary authors:** KOVALENKO, Alexander (Joint Institute for Nuclear Research); SORIN, Alexander (Joint Inst. for Nuclear Research (RU)); TRUBNIKOV, Grigory; MESHKOV, Igor (Joint Institute for Nuclear Research (JINR)); LEDNICKY, Richard (Joint Institute for Nuclear Research, Dubna, Russia); MATVEEV, Viktor (Russian Academy of Sciences (RU)); KEKELIDZE, Vladimir (Joint Inst. for Nuclear Research (JINR))

**Presenter:** LEDNICKY, Richard (Joint Institute for Nuclear Research, Dubna, Russia)

**Session Classification:** Parallel 7C: New Experimental Developments (Chair T. Peitzmann)

**Track Classification:** Experiment upgrades, new facilities, and instrumentation