

# Service de Physique Nucléaire



## Séminaire

le mardi 9 mars 2009 (jour exceptionnel!) à 11h

CEA Saclay, Orme des Merisiers, Bât. 703, Salle 135

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### Spin physics at the future NICA facility in JINR/Dubna

Alexander Nagaytsev

JINR/Dubna, Russie

The spin program at the NICA collider is under preparation. The purpose of this program is the study of the nucleon spin structure and other phenomena with polarized proton and deuteron beams. Our project focuses on the very interesting possibilities provided by the second collider option with the light nuclear beams, in particular with the proton and deuteron ones. It is argued that the design of the collider should allow to reach the collision proton energy up to  $\sqrt{s} \sim 26$  GeV with the average luminosity up to  $2 \times 10^{30}$  cm<sup>2</sup>/s, and for the deuteron collisions - up to  $\sqrt{s} \sim 12$  GeV per nucleon with the average luminosity up to  $10^{29}$  cm<sup>2</sup>/s. It is of great importance that both proton and deuteron beams can be effectively polarized longitudinally and transversally.

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*Le café sera servi 10 minutes avant*

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[http://irfu-i.cea.fr/Phocea/Vie\\_des\\_Labos/Seminaires/index.php](http://irfu-i.cea.fr/Phocea/Vie_des_Labos/Seminaires/index.php)