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The heavy ion collider project NICA/MPD at JINR (Dubna)

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New project - heavy ion collider facility NICA/MPD (Nuclotron-based Ion Collider fAcility + MultyPurpose Detector) is under active development now at JINR (Dubna).
The general goal of the project is to start in the coming 5 years experimental study of hot and dense strongly interacting baryonic matter and search for possible signs of the mixed phase and critical endpoint in heavy ion collisions (centre-of-mass energy √s_N N = 5-11 GeV (for Auˆ79+), average luminosity of L = 10ˆ27 cmˆ-2 sˆ-1)
The MultiPurpose Detector (MPD) is proposed for this purpose. Another goal of NICA is performance of experimental studies on spin physics with colliding beams of polarized protons and light nuclei.
The report contains physics motivation and main characteristics of the project: the facility scheme and operation scenario, proposed methods of intense ion beam formation, achievement of the required luminosity, conceptual design of the MPD. Status and plans of the project development are presented as well.

Author: Dr TRUBNIKOV, Grigory (Joint Institute for Nuclear Research, Dubna)

Co-authors: Prof. KOVALENKO, Alexander (JINR); Prof. SORIN, Alexander (JINR); Prof. SISSAKIAN, Alexei (JINR); Prof. MESHKOV, Igor (JINR); Prof. LEDNICKY, Richard (JINR); Prof. KEKELIDZE, Vladimir (JINR)

Presenter: Dr TRUBNIKOV, Grigory (Joint Institute for Nuclear Research, Dubna)

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