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Status of the NICA project at JINR

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The scientific program and current status of the project NICA realization is presented in the report.
A new scientific project NICA (the Nuclotron based Ion Collider facility) is now under the preparation at the Joint Institute for Nuclear Research (JINR) in Dubna. The project is aimed at two scientific programs: the study of the hot and dense baryonic matter under extreme conditions and at the search for the phase transitions, and at the investigation of nucleon spin. Heavy ion program will be held in the energy range up to √sNN = 11 GeV/n at average luminosity of L =1027 cm-2s-1 for 192Au79+ nuclei. The energy in polarized beam collisions will rich √sNN = 27 GeV for protons and √sNN = 13.2 GeV/n for deuterons at luminosity L = 1032 cm-2s-1.
The accelerator facility of the NICA complex is based on the existing superconducting synchrotron - the Nuclotron, and consists of a set of ion sources - KRION-6T, SPP and others, two linacs - HILac and LU-20, buster synchrotron and two superconducting collider rings. The scientific program will be realized on the Nuclotron extracted beams (BM@N experiment) and in the collider mode (MPD and SPD experiments).

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