

## **Recent FLNR JINR developments and collaboration with NUSTAR**

Radioactive ion beam (RIB) studies in Russian Federation at the moment are conducted only in one place – ACCULINNA fragment-separator at Flerov Laboratory of Nuclear Reactions (FLNR) at the Joint Institute for Nuclear Research (JINR). Much more powerful ACCULINNA-2 facility has recently started operation. The current scientific program of this facility as well as technical development plans are discussed.

ACCULINNA group at FLNR is active collaborator of various R&D activities of NUSTAR. One of the important parts here is EXPERT (EXotic Particle Emission and Radioactivity by Tracking) setup of SuperFRS scientific collaboration. Recently the results of pilot EXPERT experiment concerning Ar and Cl isotopic chains were published. These results provide important insights for operation of the EXPERT setup and further experimental planning.

The long-range plans for FLNR JINR development are actively discussed now. It is proposed to construct powerful RIB facility DERICA (Dubna Electron-Radioactive Ion Collider fAcility) covering broad range of modern nuclear physics aspects (new isotope synthesis and production, its masses, lifetimes and decay modes, nuclear reactions and spectroscopy). However, the emphasis of the project is storage ring physics with ultimate aim of electron-RIB scattering studies in the collider experiments.