



Contribution ID: 89

Type: **not specified**

## JINR Accelerators for Nuclear Research

*Thursday, 22 August 2019 11:00 (30 minutes)*

Boris Sharkov

Joint Institute for Nuclear Research, Dubna, Moscow region, 141980 Russia.  
National Research Nuclear University MEPhI, 115409, Moscow, Kashirskoe shosse, 31.

Construction of new generation of heavy ion accelerator facilities is progressing well and forefront accelerator technologies are under development in JINR for low energy as well as for relativistic heavy ion nuclear physics.

This presentation outlines ongoing activities on development of heavy ion accelerator facilities, providing high-brightness beams capable of generating intense beams of RI as well as for research into extreme state of nuclear matter. Manifested facilities goals are pushing the “intensity” and the “precision frontiers” to the extremes when accelerating full range of ion beam species from p+ to U to highest beam intensities and luminosities.

Sophisticated beam manipulation methods, stochastic and electron cooling of ion beams, also applicable to the secondary radioactive beams of exotic nuclei is under discussion.

Consideration is focused on the recent achievements in high power linear accelerator injection chains, rapid cycling superconducting magnets of large synchrotron rings, ultra-high dynamic vacuum technologies, efficient accumulation and cooling of intense heavy ion beams.

**Primary authors:** Prof. SHARKOV, Boris (Boris); SHARKOV, Boris (JINR)

**Presenters:** Prof. SHARKOV, Boris (Boris); SHARKOV, Boris (JINR)

**Session Classification:** Workshop on Physics of Exotic Nuclei