**Dual-purpose structure for light and heavy particles**

Kolokolchikov S., Senichev Yu, Aksentyev A. Melnikov A.

The dual-purpose structure can be used to accelerate both heavy ions and light polarized protons and deuterons. To ensure the necessary beam parameters, it is essential to provide a sufficient beam lifetime due to the ratio of charge to mass. Moreover, the stability of the beam during the transition energy crossing must be ensured. Utilizing this facility for a variety of experiments presents a substantial advantage, enabling the expansion of the complex's research program.

1. Время жизни пучка
   1. Стохастическое охлаждение
   2. Время внутрипучкового разогрева

3 варианта магнитооптики: регулярная, резонансная и комбинированная

1. Критическая энергия

В зависимости от частиц используются различные оптики