

Experiments at the FRIB ReAccelerator

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The Facility for Rare Isotope Beams (FRIB) is a scientific user facility funded by the US Department of Energy Office of Science (DOE-SC) located at the Michigan State University. FRIB started operations in May 2022 and is ramping towards its designed 400 kW of driver beam power.

Within the FRIB laboratory, the ReAccelerator (ReA) is a superconducting LINAC aimed to reaccelerate stopped rare isotope beams produced via inflight fragmentation or fission from primary beams accelerated by the FRIB SC-LINAC. In addition, ReA can also accelerate stable and long lived radioactive isotopes from local sources. In 2021, ReA was upgraded and can provide beam energies from 300 keV/u up to 6 MeV/u for ions with charge over mass equal to 1/4. Those beam energies are of particular interest for nuclear astrophysics.

This contribution will briefly describe the ReAccelerator, its capabilities as well as the process towards conducting an experiment, including the support available at FRIB.

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