APR09-2009-000207

Abstract for an Invited Paper for the APR09 Meeting of the American Physical Society

Promise and Preparations of FRIB for Nuclear Astrophysics¹

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The promise of FRIB for nuclear astrophysics will be discussed, and tentative plans for the facility implementation will be given. The current state of experiments in producing and studying new isotopes important for explosive scenarios in nuclear astrophysics will be reviewed and this status used to extrapolate to what might be expected with a more powerful FRIB facility. For example, the current state of delineating the limits of nuclei will be presented and prospects for how this might be extended at FRIB described. Finally some of the challenges that need to be addressed prior to FRIB operation, such as how we might model the fission of very neutron rich nuclei and measure neutron and proton radii in exotic isotopes, will be presented.

¹supported by DOE Office of Science and the National Science Foundation