

The NUSTAR project at GSI and FAIR

Thursday, 5 December 2013 09:00 (35 minutes)

NUSTAR comprises the current nuclear structure, astrophysics and reactions programme at GSI and its proposed continuation and extension at FAIR. NUSTAR relies on the availability of exotic rare isotope beams produced by fragmentation reactions and fission of relativistic heavy ions. The fragment separator FRS and a versatile set of instruments, including gamma arrays, particle spectrometers and a storage ring enable unique experiments at GSI. The Super-FRS at the FAIR facility will provide several orders of magnitude stronger beams, providing access to the extremes of nuclear stability. To exploit these opportunities novel experimental set-ups are in preparation. R&D efforts result already now in improved detectors and enables the NUSTAR collaboration to steadily enhance the sensitivity and selectivity limit of their experiments. Current NUSTAR physics highlights as well as development projects and activities will be discussed.

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