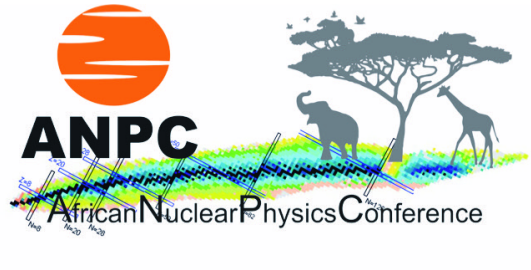

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The HISPEC/DESPEC project at GSI/FAIR H

HISPEC/DESPEC project at FAIR include the nuclear structure program and explore gamma ray spectroscopy as a main experimental tool. With addition of specialized for the FAIR in-flight facility beams heavy ion and light particle detector setups, the project will address burning questions of shell evolution in astrophysical context of r-process waiting points. In particular, DESPEC-Phase0 experimental project at GSI and FAIR preparation has already started. The goal is to investigate different modes of decay in exotic and heavy nuclei with spectroscopic means. High resolution gamma ray spectroscopy measurement will be combined with a precise time measurement of the of emitted gamma rays to measure decay schemes and lifetime of the intermediate states. The associated beta particles, conversion electrons, heavy ions will be registered by DSSSD-array AIDA and scintillator detectors. The decay neutrons will be filtered out by the MONSTER detector. The experimental detector-setup will be presented together with the plans for commissioning and physics campaigns.

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