

Großes Physikalisches Kolloquium an der Universität zu Köln

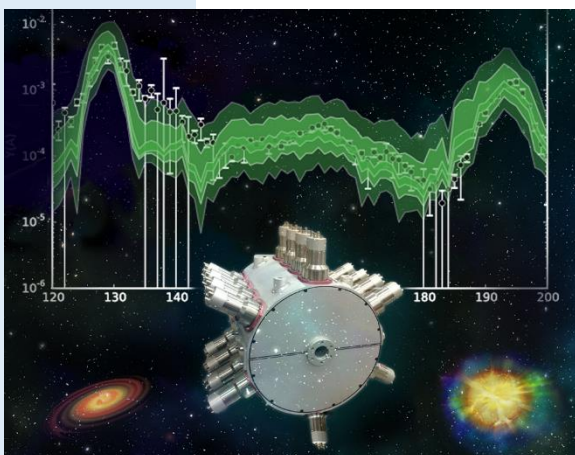


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The synthesis of heavy elements in stellar explosions

29.11.2022
16³⁰ Uhr
HS III

Since its birth roughly 60 years ago, the field of Nuclear Astrophysics strives to provide a comprehensive description of element synthesis in the Universe. While parts of stellar nucleosynthesis are well understood, others remain elusive to this day. Especially, the production of elements heavier than iron has been one of the major open questions in the field. Multiple processes and stellar sites contribute to the complex puzzle of heavy element production. Interpreting the astronomical observations requires the understanding of the nuclear processes that drive stellar explosions. This colloquium will focus on the critical nuclear properties needed to explain heavy element nucleosynthesis.



I will discuss recent experimental results, as well as new initiatives and future plans at the next generation rare isotope facility, the Facility for Rare Isotope Beams (FRIB) at Michigan State University.