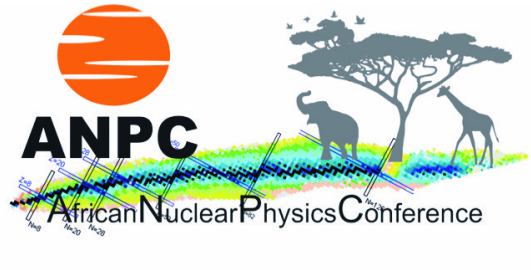

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Ion trapping at radioactive-ion-beam facilities for mass measurements

The demand for ion traps at radioactive-ion-beam facilities has grown since beams can be tailored for the desired experiment. For mass measurements, these developments have been driven by the need for increasingly better precision, sensitivity, speed, and purification. The highest precision and resolving power can be achieved in a Penning trap. In contrast, speed and purification have benefited from the more recent introduction of multi-reflection time-of-flight (MR-TOF) mass spectrometers. Frequently, these devices are coupled to enhance the overall performance of the mass-measuring facility. The resultant mass determinations have revealed evolution of nuclear shells, elucidated nucleosynthesis, and been used to test the Standard Model. After a brief introduction of ion trapping, I will provide an overview of recent results from iontrapping mass spectrometers around the world before focusing on results from TRIUMF's Ion Trap for Atomic and Nuclear science (TITAN).

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