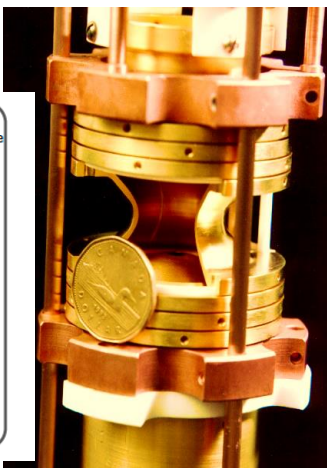
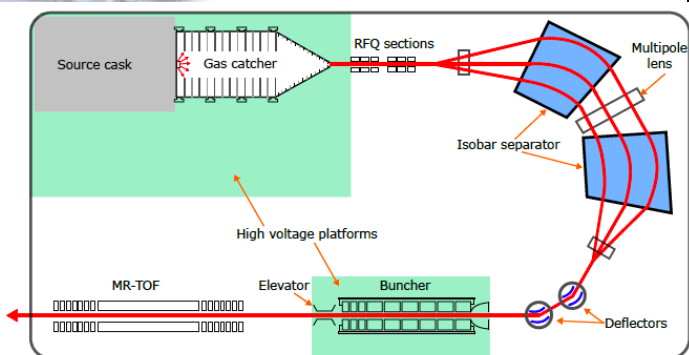
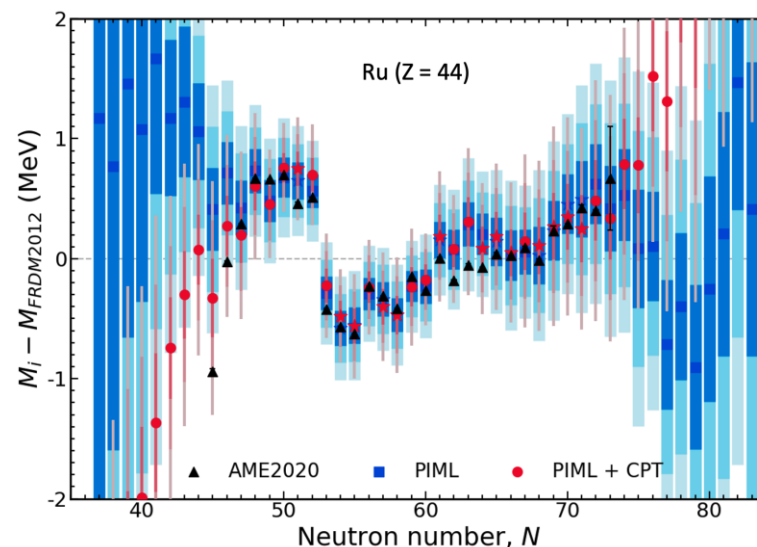


Machine Learning Mass Modeling and Precise Mass Measurements



Nuclear masses are a critical observable in our quest to understand the structure of the nucleus, and in particular our aim to improve mass models. The mass of neutron-rich Pd and Ru isotopes were measured at Argonne National Lab using the Californium Rare Isotope Breeder Upgrade (CARIBU) and the Canadian Penning Trap (CPT).



These masses were used to inform a machine learning mass model via a Bayesian-updating method. The results of these data on existing models indicate the impact of just a few improved mass precisions on the overall mass model results.



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