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Recent results and developments at CARIBU

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CARIBU provides neutron-rich low-energy and reaccelerated beams to the ATLAS user's community. It is unique in that it relies on spontaneous fission from a ^{252}Cf source to produce the neutron-rich isotopes that are cooled and extracted as a low-energy beam using a large gas catcher and guiding radio-frequency structures. These beams are accelerated to 50 kV, purified by a compact high-resolution separator, and subsequently delivered to either a low-energy experimental area or reaccelerated to above the Coulomb barrier using the ATLAS superconducting linac. Recent highlights from the CARIBU programs, including the Coulomb excitation reaccelerated beam campaign using neutron-rich beams from CARIBU with the combination of GRETINA and Chico-II, and the new mass measurement results at low-energy using an improved Penning trap mass measurement technique, will be presented. In addition, recent upgrades to reduce beam contamination of both low-energy and reaccelerated beams using a new MRTOF spectrometer and an EBIS charge-breeder will be briefly described, together with the installation of a new low-energy experimental area with much lower radioactivity background for decay spectroscopy.

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