

# Status Update on the Multi-User Upgrade of the ATLAS Linac at Argonne

*Monday 26 August 2024 16:00 (2 hours)*

The ongoing multi-user upgrade of the superconducting ion linac, ATLAS at Argonne, will enable simultaneous acceleration and delivery of two different ion beams to different experimental areas. In the initial phase, one stable, nearly continuous wave, beam from the ECR ion source and one pulsed radioactive beam from the EBIS charge breeder of the Californium Rare Isotope Beam Upgrade (CARIBU-EBIS) will be interleaved in time via an electrostatic deflector at injection, and accelerated through the first two sections of the linac. At that point, one of the beams is deflected via a pulsed switching magnet to a lower energy experimental area while the other is sent for further acceleration in the third section of the linac and delivered to a higher energy experimental area. Significant progress has been made over the past couple of years; construction of the new pulsed injection beamline is almost complete, and the design of the extraction beamline including the kicker magnet and a new chicane has been finalized. Details of the final design and the ongoing installation work will be presented. In addition to enhancing the nuclear physics program at ATLAS, this upgrade will also increase the availability of beam time for some applications.

## Footnotes

## Funding Agency

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