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Design Update of the ATLAS Multi-User Upgrade at Argonne

Thursday 14 August 2025 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 nuCARIBU 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. In addition to enhancing the nuclear physics program at ATLAS, this upgrade will also increase the availability of beam time for some applications. While the construction and installation of the new pulsed injection beamline is now complete, there has been a change in the design of the extraction beamline. The original chicane designed to bypass the existing 40-deg bend has been removed, and the existing beamline was modified to incorporate the kicker and septum as the only required magnets. Details of the final design and progress made will be presented.

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Yes

Would you like to submit this poster in student poster session on Sunday (August 10th)

No

Footnotes

Funding Agency

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