Contribution ID: **267** Contribution code: **TUP087**   Type: **Poster Presentation**

Simulations of LAMP Front-End Concept with Multiple Beams

Tuesday 12 August 2025 16:00 (2 hours)

The LANSCE Accelerator Modernization Project (LAMP) plans to replace the two existing 750-keV Cockcroft Waltons by a single radio-frequency quadrupole (RFQ), and to install a new 100-MeV drift-tube linac (DTL). LAMP will simultaneously produce H+ and H- beams with different timing patterns to serve multiple experimental facilities. A low energy beam transport (LEBT) is designed to transport H+ and H- beams from the ion sources into the 201.25 MHz RFQ, where the beams are accelerated to 3 MeV. A medium energy beam transport (MEBT) is designed to transport the beam from the RFQ to the DTL. The DTL accelerates both beams to 100 MeV. The LEBT and MEBT designs include beam choppers and rf systems that imprint the multiple timing patterns required by experiments. Here we describe a concept of the LAMP front-end and present particle simulation results for multiple beams relevant to the facility.

Please consider my poster for contributed oral presentation

Yes

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

No

Footnotes

Funding Agency

I have read and accept the Privacy Policy Statement

Yes

Author: Dr SOSA GUITRON, Salvador (Los Alamos National Laboratory)

Co-authors: DIMITROV, Dimitre (Los Alamos National Laboratory); GORELOV, Dmitry (Los Alamos National Laboratory); DALE, Gregory (Los Alamos National Laboratory); XU, Haoran (Los Alamos National Laboratory); UPADHYAY, Janardan (Los Alamos National Laboratory); Dr LEWELLEN, John (Los Alamos National

Laboratory);   BISHOFBERGER, Kip (Los Alamos National Laboratory);   RYBARCYK, Lawrence (Los Alamos National Laboratory);   KURENNOY, Sergey (Los Alamos National Laboratory)

Presenter: Dr SOSA GUITRON, Salvador (Los Alamos National Laboratory)

Session Classification: TUP: Tuesday Poster Session

Track Classification: MC5 –Beam Dynamics and EM Fields