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Beam envelope matching for the LANSCE Modernization Project

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The Los Alamos Neutron Science Center (LANSCE) accelerator celebrated fifty years of operation in 2023. The LANSCE Modernization Project (LAMP) aims to ensure the future, by upgrading the aging hardware with a new replacement front end. This includes plans to replace the Cockcroft-Walton generators with a Radio-Frequency Quadrupole (RFQ), the low and medium energy transport (LEBT and MEBT respectively) sections, and drift tube linac (DTL). In this work, we detail the matching for the LAMP MEBT and DTL.

Footnotes

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