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Summary of the LANL mini-workshop on source region options for LAMP

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The core components of the LANSCE accelerator complex –the beam source area, drift-tube and cavity-coupled linear accelerators –are more than 50 years old; a critical subsystem for beam delivery to the Lujan Center, the proton storage ring (PSR), is more than 20 years old. The proposed LAMP project is intended to begin a revitalization and update of the LANSCE accelerator complex, starting with the beam source region, drift-tube linac, and PSR.

To help assure we have selected an optimal candidate design for the source region, an internal workshop was held in August 2023 to consider options for providing two beam species at the peak and average currents, and beam macropulse formats, required by the various LANSCE user stations. This document describes the workshop goals and processes, presents the various configurations considered, and lists the results of the downselect process and potential paths forward.

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