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## Lambertson Septum Magnet Design for the LCLS-II Beam Spreader at SLAC

*Tuesday, 29 August 2017 13:15 (1h 45m)*

The LCLS-II at SLAC utilizes an arrangement of kickers and septa magnets to direct the electron beams from the normal and superconducting linacs to the soft and hard x-ray undulator beamlines. A consequence of the performance requirement for kicker pulse rates as high as 1 MHz. is the beam separation at the face of the septum is limited to 15mm. This imposes physical constraints on the design of the magnet pole and vacuum chamber, requiring a magnet pole with integrated vacuum chamber. The design for the LCLS-II beam spreader Lambertson septum magnet is presented and the engineering and manufacturing challenges are discussed.

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