

THE 12-GEV CEBAF UPGRADE PROJECT

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Abstract

The status of the CEBAF recirculating linac upgrade from 6 GeV to 12 GeV is presented. This upgrade consists of an increase in machine energy by a factor of two and the addition of a new experimental hall [including new extraction region and transport line]. The doubling of the energy will be achieved by three means: added new high-gradient 7-cell cryomodules, refurbishment of existing cryomodules, and adding an extra pass through the linac. Beam requirements, beam physics issues including synchrotron radiation effects, and the expected beam properties will be presented. The talk will also present the beam optics for the 12 GeV upgrade including optimization of multipass transport in the linacs.

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