

Abstract Submitted
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A Highly-Segmented, Radiation Tolerant Shashlik Electromagnetic Calorimeter CHRISTOPHER NEU, University of Virginia — A highly-segmented electromagnetic shashlik calorimeter has been designed for high radiation field applications. Tungsten absorber plates are interleaved among scintillator plates; LYSO and CeF₃ have been considered for the scintillating medium, and wavelength-shifting fibers are used to transport scintillating light to photodetectors where signal reconstruction begins. Design details, standalone simulation performance predictions and results from testbeams will be discussed. The design was driven by the occupancy and radiation conditions expected in the high-luminosity LHC era, but the calorimeter can be used at other future experiments as well.

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