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The Shashlik Calorimeter, a LYSO/W plate Calorimeter for Precision EM Calorimeter in the High Luminosity LHC environment (12' + 3')

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Over the last four years, a group of institutions active in the CMS experiment have developed with beam tests, radiation damage studies, and simulations a sampling EM calorimeter option that consists of two endcap 30,000 element LYSO/W plate configurations that would provide superb EM resolution for photons and electrons of order (10%)/√E+1%. When coupled with the existing HE hadron calorimeter it also delivers excellent hadronic resolution for jets in the harsh environment of the forward eta region of the LHC collider. We present the Shashlik configuration proposed to CMS together with the results of beam tests, radiation damage, and the performance of the configuration.

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