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Fast Forward Calorimetry for CMS JESSICA SNYDER, University of Kansas, CMS COLLABORATION — The CMS experiment at the LHC will study heavy ion and p-p collisions at 5 and 14 TeV respectively. The CMS heavy ion group has designed and built a Zero Degree Calorimeter (ZDC), to measure the topology of these collisions. This is part of a general effort in CMS to study low X physics and dense gluonic systems such as the Color Glass Condensate. The calorimeters are comprised of electromagnetic (EM) and hadronic sections with the Berkely shower maximum detector in between. The EM section is segmented transverse to the beam while the hadronic portion is segmented along the beam axis. For p-p collisions, we will study pomeron and odderon production since these are sensitive to the gluonic component of the proton wave function. For heavy ion collisions, we will measure the centrality of the events and provide a fast trigger for ultra-peripheral collisions. I will report on results from our recent beam test at CERN and extrapolate the ZDC's performance to LHC energies.

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