

Abstract Submitted  
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**Zero Degree Calorimeter for CMS at the LHC** EDWIN NORBECK,  
U of Iowa, CMS COLLABORATION — The Zero Degree Calorimeter (ZDC) for the CMS experiment at the Large Hadron Collider is located between the incoming and outgoing beam lines at a distance of 140 m on each side of the interaction point. It measures primarily neutral particles that go in the direction of the original proton or heavy ion beam. With p-p reactions these are mostly neutrons produced by a charge exchange of the original proton. With heavy ion reactions the ZDC measures mostly spectator neutrons. The number of neutrons provides a measure of the amount of overlap of the interacting heavy ions. Over the last year the ZDC has collected data from p-p reactions at center of mass energies of 0.9, 2.36, and 7.0 TeV and Pb-Pb reactions at center of mass energies per nucleon pair of 2.75 TeV.

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