

University of Notre Dame
College of Science
Department of Physics

PARTICLE PHYSICS SEMINAR

Electroweak Results from CMS

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Tuesday, November 30, 2010 4:00 p.m. NSH 415

I will present recent results concerning electroweak W and Z boson production measured with the CMS experiment at the Large Hadron Collider. The data comprise 2.9 pb⁻¹ of pp collision data at 7 TeV center-of-mass energy, including thousands of Z boson candidates and tens of thousands of W boson candidates.

These processes are crucial first precision tests of electroweak theory and perturbative QCD at 7 TeV, benchmarks for lepton and missing energy reconstruction, and possible future estimators of LHC luminosity. I will describe lepton and missing energy reconstruction and calibration methods, background subtraction methods, signal efficiency estimation, theoretical uncertainties, cross section and cross section ratio results, and future prospects.

ALL INTERESTED PERSONS ARE CORDIALLY INVITED TO ATTEND