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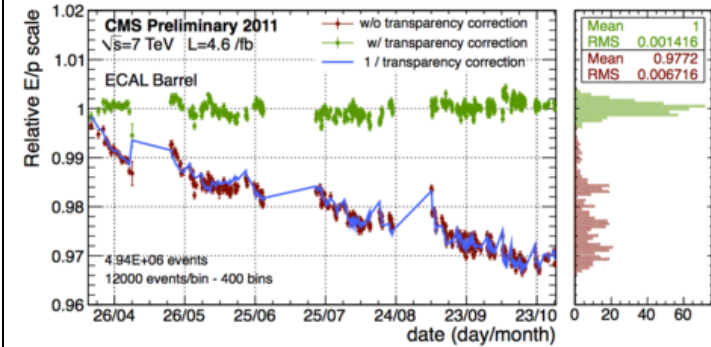
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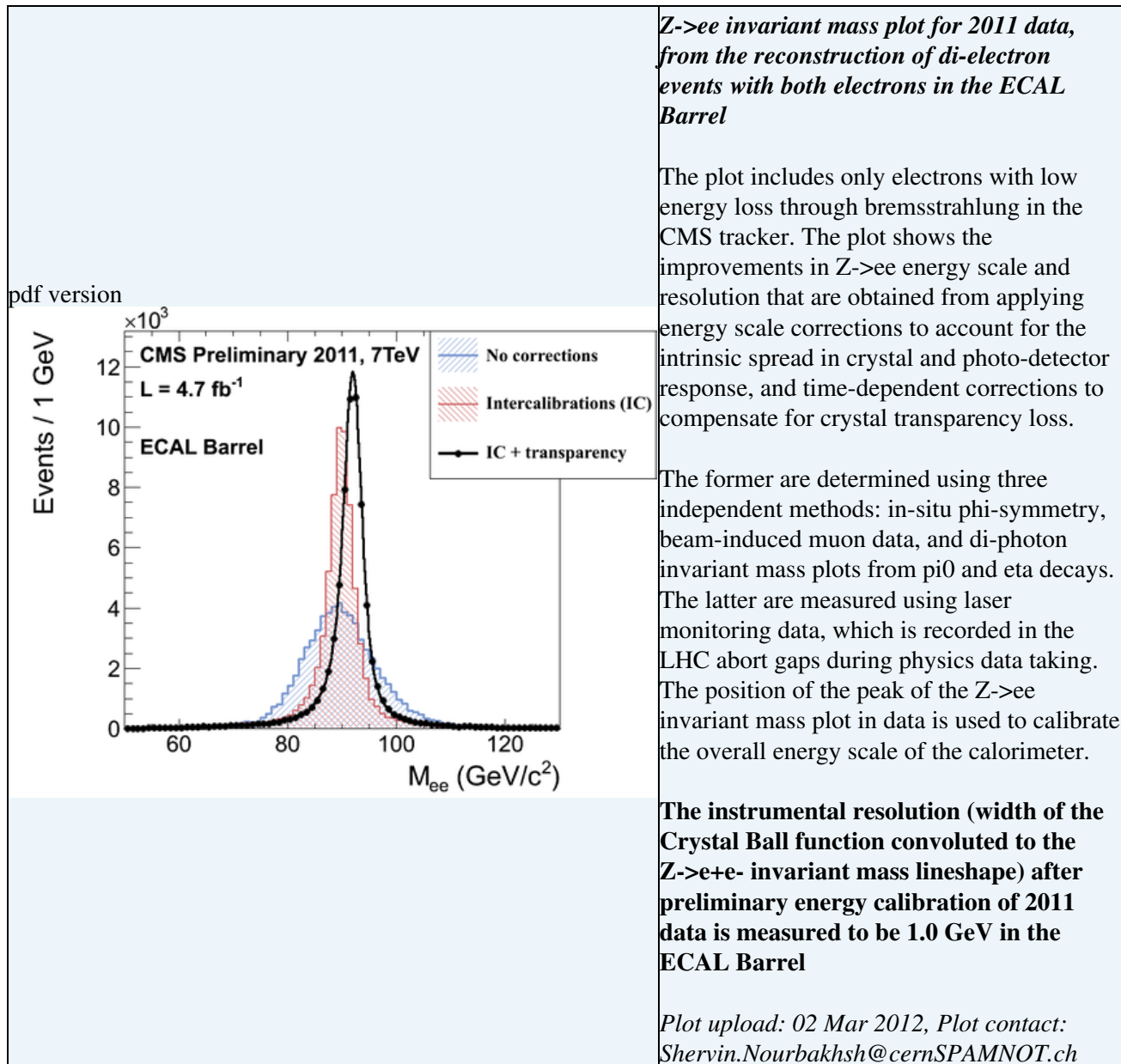
ECAL Performance Results on 2011 data

Abstract: Performance plots on energy calibration and resolution of the CMS Electromagnetic calorimeter, based on the 2011 pp data sample.

CDS entry [↗](#)

iCMS entry [↗](#)

Figure	Caption
<p>pdf version</p> 	<p><i>History plot for 2011 data of the ratio of electron energy E, measured in the ECAL Barrel, to the electron momentum p, measured in the tracker</i></p> <p>The electrons are selected from $W \rightarrow e\nu$ decays. Each point in the plot is computed from 12000 selected $W \rightarrow e\nu$ events with the reconstructed electron located in the ECAL Barrel. The E/p distribution for each point is fitted to a template E/p distribution measured from data (using the entire 2011 dataset) in order to provide a relative scale for the E/p measurement versus time.</p> <p>The history plots are shown before (red points) and after (green points) corrections to ECAL crystal response due to transparency loss are applied. The magnitude of the average transparency correction for each point (averaged over all crystals in the reconstructed electromagnetic clusters) is indicated by the continuous blue line.</p> <p>A stable energy scale is achieved throughout the 2011 run after applying transparency corrections to the ECAL data. The average signal loss of 2.5% in the ECAL barrel is corrected with an RMS stability of 0.14%</p> <p><i>Plot upload: 02 Mar 2012, Plot contact: Andrea.Benaglia@cernSPAMNOT.ch</i></p>



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