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Latest results on luminosity measurements from the CMS experiment

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Precision luminosity measurements are an essential ingredient to cross section measurements at the LHC, needed to determine fundamental parameters of the standard model and to constrain or discover beyond-the-standard-model phenomena. The latest luminosity measurements of the CMS detector at the CERN Large Hadron Collider are reported. The absolute luminosity scale is obtained with beam-separation ("van der Meer") scans, and several systematic uncertainty sources are studied. Additional contributions to the total uncertainty in the integrated luminosity originate from the linearity and stability of the detectors used in the luminosity measurement throughout the data-taking period. A novel method to improve the luminosity integration with the physics process $Z \longrightarrow \mu^+\mu^-$ is explored.

Is this abstract from experiment?

Yes

Name of experiment and experimental site

Compact Muon Solenoid (CMS)

Is the speaker for that presentation defined?

Yes

Details

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Internet talk

No

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