



ID de Contribution: 19

Type: YSF (Young Scientists Forum)

## Measurement of the production cross sections of $Z/\gamma^*$ bosons in association with b-jets in pp collisions at $\sqrt{s} = 7$ TeV with the CMS detector

*vendredi 8 mars 2013 19:46 (5 minutes)*

The mechanism of production of heavy-flavoured mesons, in association with vector bosons like  $Z+b$  in the Standard Model, is only partially understood. The deep understanding of these processes is furthermore required by Higgs and BSM analysis with similar final states. Using the total 5.2 fb<sup>-1</sup> LHC proton-proton collision data collected in 2011 at a centre of mass energy of 7 TeV by the CMS detector, the final measurement of the  $Z+b$  cross sections will be presented in this talk.  $Z+b$  inclusive,  $Z+1b$  exclusive and  $Z+2b$  inclusive cross sections are determined for b hadron jets having  $p_T > 25$  GeV and  $|\eta| < 2.1$ . The results are related to the following CMS document : Measurement of the production cross sections of  $Z/\gamma^*$  bosons in association with b-jets in pp collisions at  $\sqrt{s} = 7$  TeV with the CMS detector, CMS PAS SMP-12-003.

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**Classification de Session:** Young Scientist Forum

**Classification de thématique:** Experiment