Contribution ID: **117** Type: **Oral presentation**

# Measurement of the nuclear modification factor of electrons from heavy-flavour decays in Pb-Pb collisions at $\sqrt{s_{\rm NN}}$ = 2.76 TeV with ALICE

*Thursday, 31 May 2012 15:20 (20 minutes)*

The medium-induced parton energy loss is expected to depend on its mass and colour charge. At the LHC, heavy quarks are copiously produced. This allows us to provide new constraints on partonic energy loss mechanisms in the medium produced in the heavy-ion collisions. The yield of electrons from semileptonic heavy-flavour decays has been measured at mid-rapidity \mbox{($|y| < 0.8$)} in Pb-Pb collisions at \mbox{$\sqrt{s_{\rm NN}}$ = 2.76 TeV} by the ALICE experiment at the LHC in the transverse momentum range \mbox{1.5~$< p_{\rm t} <$~6~GeV/$c$}. The $p_{\rm t}$ dependence of the nuclear modification factor $R_{\rm AA}$ at central rapidity has been calculated with respect to a pp reference
obtained from the cross section measured at \mbox{$\sqrt{s}$ = 7 TeV} and scaled to \mbox{$\sqrt{s}$ = 2.76 TeV}. We present the spectra and the nuclear modification factor of electrons from heavy-flavour decays for different centrality classes. The production of electrons from beauty decays can be addressed using their displacement from the primary vertex. We discuss the status of this analysis in Pb-Pb collisions, towards the measurement of the nuclear modification factor of electrons from beauty decays.

**Primary author:** KWEON, MinJung (University of Heidelberg)

**Presenter:** KWEON, MinJung (University of Heidelberg)

**Session Classification:** Parallel IVA: heavy flavour