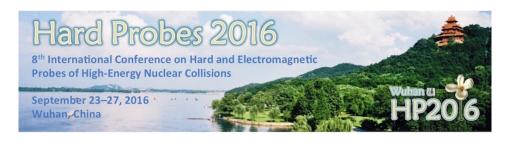
## **Hard Probe 2016**



Contribution ID: 93 Type: not specified

## Direct photon yield in pp and in Pb-Pb collisions measured with the ALICE experiment

Saturday, 24 September 2016 08:30 (20 minutes)

Direct photons are produced at every stage of the nucleus-nucleus collision and therefore they are sensitive to the different phases of the medium evolution. The low- $p_T$  component of the direct photon spectrum is dominated by thermal production in the quark-gluon plasma and during the hadron-gas phase and carries information about the temperature of the emitting medium; for  $p_T$  greater than 5 GeV/c, direct photons are mainly produced in hard partonic scattering processes in the early stage of the collision and are not affected by the strongly interacting medium, allowing us to access information on the initial dynamics.

Measurements of direct photon spectra in pp collisions serve both to refine perturbative Quantum Chromodynamics, in particular our knowledge of the parton distribution functions, and as reference for heavy-ion studies.

In this talk, an overview of the most recent ALICE results on direct photon production from pp and Pb-Pb collisions at  $\sqrt{s_{NN}}$  = 2.76 TeV will be shown in comparison with predictions from hydrodynamic models. The current status of analysis

on direct photon production in pp collisions at  $\sqrt{s}=7$  TeV, using isolation techniques for high- $p_T$  candidates, will also be shown and discussed.

## **Summary**

## Presentation type

Oral

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**Session Classification:** Parallel Session I: EM Probes (I)