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## Neutral meson production in pp and Pb-Pb collisions at the LHC measured with ALICE

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Identified hadron spectra are considered to be sensitive to transport properties of strongly interacting matter produced in high-energy nucleus-nucleus collisions.

We present measurements of  $\pi^0$  and  $\eta$  mesons at mid-rapidity in a wide transverse momentum range in pp and Pb-Pb collisions at LHC energies measured with the ALICE detector. The mesons are reconstructed via their two-photon decays by two complementary methods, using the electromagnetic calorimeters and the central tracking system for photons converted to electron-positron pairs on the material of the inner ALICE barrel tracking detectors.

The spectrum and the nuclear modification factor ( $R_{AA}$ ) of the  $\pi^0$  production measured in Pb-Pb collisions at different collision centralities show a clear pattern of strong suppression with respect to pp collisions. The azimuthal anisotropy ( $v_2$ ) of the  $\pi^0$  production is consistent with  $v_2$  for other hadron species. Comparison of the ALICE results on neutral mesons with those of lower-energy experiments is discussed.

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