

# Quark Matter 2019 - the XXVIIIth International Conference on Ultra-relativistic Nucleus-Nucleus Collisions



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## The neutral meson measurement in jets in Pb–Pb collisions in ALICE

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Neutral mesons and jets are good probes to study particle production mechanisms and jet phenomena in various collision systems, providing comparisons to model calculations and constraining coefficients of hot QCD matter. Recent measurements of ALICE in pp collisions show a modification of the  $\eta/\pi^0$  ratio for the neutral meson production in jets with respect to the inclusive measurement. The reconstruction of neutral pions inside jets can be extended to Pb–Pb and p–Pb collisions. The comparison of the production inside jets in cold and hot nuclear collisions would shed light on the final state effects of the jet quenching mechanism. The reconstruction of neutral pions is done via the two photon decay channel combining various methods of reconstruction. The decay photons are reconstructed via the Photon Conversion Method (PCM) and in the ALICE calorimeters (EMCal and PHOS). In this poster, the latest advances of the neutral meson production inside charged jets in nuclear collisions will be presented.

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