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p/pi ratio in jet and bulk region in heavy ion collisions

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An important open question regarding hadronization in heavy-ion collisions is to understand the baryon enhancement at intermediate pT observed at RHIC. In this work we analyze the p/π ratio in the associated yield (pT < 5.0 GeV/c) correlated to a high-pT trigger (pT > 5.0 GeV/c) in central Pb-Pb collisions. For this analysis we used Pb-Pb data taken by the ALICE detector at a center of mass energy of $\sqrt{s_NN} = 2.76$ TeV.

We measure the p/π ratio in the near-side jet peak, as well as in the near-side ridge region at large $\Delta\eta$, to distinguish between hadrons originating from hard partons and hadrons originating from the hot and dense QCD medium. We observe that at intermediate pT the p/π ratio in the jet peak is much lower than in the ridge region.

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