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Identified light-flavour particle production measured with ALICE at the LHC as a probe of soft QCD and hot hadronic matter

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ALICE is a general-purpose heavy-ion experiment able to identify particles over a wide momentum range thanks to its excellent vertexing and tracking performance, its low material budget and its possibility to combine different Particle IDentification (PID) techniques.

In this talk the transverse momentum (p_T) spectra of identified light flavour particles in pp and Pb-Pb collisions and the comparison with models are reported. These spectra are of fundamental importance to study the particle production mechanisms playing a role in the different momentum ranges and probe the hot medium formed in heavy-ion collisions. Further information on the effects of the medium produced in Pb-Pb collisions on particle production can be obtained comparing the particle ratios in the two colliding systems and studying the nuclear modification factor (R_{AA}) that are also reported in this talk. Finally the p_T integrated yields and ratios are discussed in terms of thermal models to extract the properties of the medium produced in Pb-Pb collisions at the chemical freeze-out.

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