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Hadronic resonances in heavy-ion collisions at ALICE

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Properties of the hadronic phase of high-energy heavy-ion collisions can be studied by measuring the ratios of hadronic resonance yields to the yields of longer-lived particles such as charged pions and kaons. These ratios can be used to study the strength of re-scattering effects, the chemical freeze-out temperature, and the lifetime between chemical and kinetic freeze-out. The restoration of chiral symmetry during the early hadronic phase or near the phase transition may lead to shifts in the masses and increases in the widths of hadronic resonances. The ALICE collaboration has measured the spectra, masses, and widths of the K(892)0 and phi(1020) resonances in Pb–Pb collisions at sqrt(s_NN) = 2.76 TeV. These results, including R_CP, R_AA, mean transverse momenta, and the ratios of the integrated resonance yields to non-resonance hadron yields, will be presented and compared to results from other collision systems and theoretical predictions. Studies of resonance properties in p–Pb collisions provide a baseline measurement to which heavy-ion measurements can be compared; the status of the measurements of the phi(1020) meson

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in this collision system will be also reported.