

# Strangeness in Quark Matter 2019



Contribution ID: 77

Type: **Contributed talk**

## Hadronic resonance production with ALICE at the LHC

*Thursday 13 June 2019 17:10 (20 minutes)*

Measurements of the production of short-lived hadronic resonances are used to probe the properties of the late hadronic phase in ultra-relativistic heavy-ion collisions. Since these resonances have lifetimes comparable to that of the fireball, they are sensitive to the competing effects of particle re-scattering and regeneration in the hadronic gas, which modify the observed particle momentum distributions and yields after hadronisation. Having different masses, quantum numbers and quark content, hadronic resonances carry a wealth of information on different aspects of ion-ion collisions, including the processes that determine the shapes of particle momentum spectra, insight into strangeness production and collective effects in small collision systems.

We present the most recent ALICE results on  $\rho(770)^0$ ,  $K^*(892)^{\pm}$ ,  $K^*(892)^0$ ,  $\phi(1020)$ ,  $\Sigma(1385)^{\pm}$ ,  $\Lambda(1520)$ ,  $\Xi(1530)^0$  and  $\Xi(1820)$  production at the LHC. They include measurements performed in pp, p-Pb and Pb-Pb collisions at different energies, as well as the latest results from the LHC Run 2 with Xe-Xe collisions at  $\sqrt{s_{NN}} = 5.44$  TeV and with Pb-Pb collisions at  $\sqrt{s_{NN}} = 5.02$  TeV. Collision energy, centrality and multiplicity differential measurements of transverse momentum spectra, integrated yields, mean transverse momenta and particle ratios are discussed in detail. A critical overview of these results will be given through comparisons to measurements from other experiments and theoretical models.

### Collaboration name

ALICE Collaboration

### Track

Hadron Resonances

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**Session Classification:** Hadron Resonances