

# Effects of colour reconnection on resonance production

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Short-lived hadronic resonance production in high energy collisions is an important observable to investigate the properties of the system created in such collisions. Measurements of particle production yields have shown a suppression in the relative production of resonances with respect to non-resonance particles for high energy collisions in which a large amount of particles were produced. In this work, we explore the effects of colour reconnection (CR) in the hadrochemistry of high multiplicity pp events simulated with the PYTHIA 8 event generator, with special emphasis on ratios such as  $K^*/K$ ,  $\rho/\pi$  and  $\eta'/\pi$  as a function of charged particle multiplicity. The results obtained show that a suppression of hadronic resonance production relative to non-resonance in high multiplicity collisions, so far interpreted as being due to re-scattering of resonance decay daughters in a hadronic phase of the system evolution, might be caused by CR in the presence of multi-parton scatterings. Based on arXiv:1707.02075 (accepted for publication, PRD).

## Summary

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