Contribution ID: **213** Type: **Talk**

ALICE measurements of inclusive untagged and heavy flavor-tagged jets in pp, p-Pb and Pb-Pb collisions

Sunday 5 September 2021 13:00 (18 minutes)

Jets emerging from heavy-flavour quark fragmentation represent convenient benchmark probes for perturbative quantum chromodynamics and heavy-flavour fragmentation models. In contrast to light-flavour jets, heavy-flavour jet substructure should be affected by the dead cone effect which suppresses collinear gluon emission off a heavy-flavour quark radiator. This phenomenon may affect also cold nuclear matter effects and in-medium energy loss of heavy-flavour jets in heavy-ion collisions.
The ALICE experiment at the LHC exploits its excellent particle tracking capabilities, which allow for a precise jet reconstruction and identification of heavy-flavour hadron decay vertices, displaced hundreds of micrometers from the primary interaction vertex. In the talk, we will report on heavy- flavour jet measurements done in pp and p-Pb collisions by ALICE. While the presented pp results will focus on discussion of the dead cone effect and D jet substructure measurements, the new b-jet results will be used to constrain cold nuclear matter effects in p-Pb down to jet transverse momentum 10 GeV/c. Finally we will discuss also the new fragmentation distribution measurement done with reclustered subjets.

Primary author: ARTEM, Isakov (Nuclear Physics Institute of the Czech Academy of Sciences)

Presenter: ARTEM, Isakov (Nuclear Physics Institute of the Czech Academy of Sciences)

Session Classification: Hot and dense matter physics - QGP and heavy ion collisions

Track Classification: Hot and dense matter physics - QGP and heavy ion collisions