



Contribution ID: 115

Type: not specified

LHCb Heavy-ion results in collider and fixed-target mode

Tuesday, 4 September 2018 18:20 (18 minutes)

LHCb is a fully instrumented forward spectrometer at the LHC with a pseudorapidity coverage $2 < \eta < 5$ designed for the study of hadrons containing b and c-quarks in pp collisions. The forward acceptance and its instrumentation for high-precision vertex reconstruction, tracking and particle identification allow for unique studies in heavy-ion collisions. Furthermore, a system for noble gas injections into the beam vacuum at the nominal interaction point can be used for fixed target studies with the LHC beams. With these data sets, it is possible to constrain nuclear modification of heavy-flavour and quarkonium production with precision in proton-induced reactions. This is of particular interest as a baseline for deconfinement signature studies in ion-ion collisions. Furthermore, in the collider mode, the production of the charm and beauty quarks probe low Bjorken-x values in the initial state of the ions where gluon saturation may start to play a role. The fixed-target data cover a kinematic range which is particularly interesting for the search of intrinsic charm at high Bjorken-x. Recent results on heavy-flavour and quarkonium production in proton-lead collisions in collider mode as well as in proton-Helium and proton-Argon collisions will be presented.

Selected session

Heavy Ion Collisions and QCD Phases

Presenter: Mr PAPPALARDO, Luciano Libero (FE)

Session Classification: Heavy Ion collisions and QCD phases