

## Heavy-flavor physics with ALICE at the LHC

*Wednesday, 3 December 2014 10:00 (45 minutes)*

Charm and beauty quarks are important probes to study the characteristics and the evolution of the strongly interacting, deconfined matter produced in relativistic heavy-ion collisions. ALICE at the LHC is well equipped to reconstruct heavy-flavor hadrons and many measurements were performed since the LHC startup in proton-proton, proton-lead and lead-lead collisions. Hadronic and semileptonic decays are detected at mid and at forward rapidity to study heavy-flavor hadron production and its modification by initial- and final-state effects in heavy-ion collisions.

An overview of the LHC Run1 results will be given. The variety and the precision of the available measurements of the nuclear modification factor, the elliptic flow and correlations with hadrons, suggest first constraints to theoretical models. A summary of what we learned so far at the LHC energies will be presented.

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