Heavy flavour production in proton-lead and lead-lead collisions with LHCb

The LHCb experiment allows to study heavy-ion interactions in the forward region ($2 < \eta < 5$) with a fully instrumented spectrometer, a unique opportunity at the LHC. The detector has excellent capabilities for reconstructing quarkonia and open charm and beauty states, including baryons, down to zero p_T. Notably, it can separate the prompt and displaced charm components. In pPb collisions, both forward and backward rapidities are covered thanks to the possibility of beam reversal. Results include measurements of the nuclear modification factor and forward-backward ratio for charmonia, open charm and bottomonia states. These quantities are sensitive probes for nuclear effects in proton–nucleus collisions. They comprise strong nuclear modifications at low Bjorken-x and constitute an important basis for the understanding of nucleus–nucleus collisions. In 2015, LHCb also participated successfully for the first time in the Pb-Pb data-taking. The status of the forward prompt J/ψ nuclear modification factor measurement for up to semi-central lead-lead collisions will be shown.