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Bottomonium production in p+p and Pb+Pb collisions with ATLAS

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Bottomonium, a bound state of a bottom quark and its antiquark, is an excellent probe of the hot and dense medium created in heavy-ion collisions at LHC. The ATLAS collaboration collected the large datasets of pp and Pb+Pb collisions in 2017 and 2018 corresponding to integrated luminosities of 242 pb^{-1} and 1.39 nb^{-1} respectively, at a centre-of-mass energy per nucleon pair of 5.02 TeV. In this poster, bottomonium states are reconstructed via the dimuon decay channel in the rapidity range of $|y| < 1$, and their production in PbPb collisions is compared to that in pp collisions to extract the nuclear modification factor, R_{AA}, as a function of event centrality and transverse momentum. In addition, the relative suppression of the excited states Y(nS) to the ground state Y(1S) is studied.

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