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Bottomonium production in pp and PbPb collisions with the CMS experiment

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Bottomonia are important probes of the quark-gluon plasma (QGP) since they are produced early on and are expected to be suppressed due to color deconfinement. They are also considered to be a cleaner probe than charmonia due to the lack of regeneration even at the LHC. The ratio of excited states $Y(nS)$ measured with respect to the ground state $Y(1S)$ in both pp and PbPb collisions are combined to form the double ratio, which is an equivalent to the ratio of $R_{\{AA\}}$'s. This observable is particularly important in understanding the amount of suppression in the QGP. In the presence of no QGP this ratio would tend toward unity. This quantity has now been studied as a function of event centrality and $Y(nS)$ kinematics using recently collected data. In this talk, the CMS collaboration presents new results on bottomonium production in pp and PbPb collisions at 5.02TeV center of mass energy.

On behalf of collaboration:

CMS

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