

Hot-medium effects on Υ yields in pPb collisions at LHC energies

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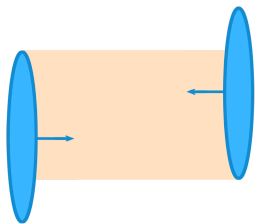
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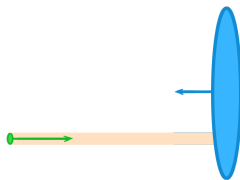
Background to the topic

Ultra-relativistic, asymmetric heavy-ion collisions:

- Υ yields $\hat{=}$ probe for inner workings of heavy-ion collisions
- In PbPb: Hot-medium effects crucial
- In pPb: Cold-nuclear matter effects significant



Pb + Pb



p + Pb

Cold-nuclear matter effects:

- Shadowing: Modification of the Parton Distribution Function
- Parton energy loss: medium-induced energy loss through gluon emission

They describe very well the relative stronger suppression at forward (proton-going) rapidity or at low transverse momentum.

Problems:

- Overall weaker predicted suppression factor
- Same initial CNM effects for $\Upsilon(2S)$ \rightarrow disagreement

Does a Quark-Gluon-Plasma add a significant contribution to the suppression of bottomonia in ultra-relativistic pPb collisions?