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Bottomonia Suppression in Heavy Ion Collisions from AdS/CFT

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We compute for the first time the suppression of bottomonia in a strongly-coupled QGP and compare the results to those from a weakly-coupled QGP. Using imaginary time techniques we numerically determine the real and imaginary parts of the binding energy of the bottomonia in a potential computed from AdS/CFT and one from pQCD. We then use these binding energies in a suppression model to determine the $Y(1S)$ and $Y(2S)$ nuclear modification factors and their double ratio. Most important, we investigate the consequences of the different velocity dependencies of these potential models on the bottomonia RAA(pT).

Apply to be considered for a student award (Yes / No)?

Yes

Level for award (Hons, MSc, PhD, N/A)?

Hons

Main supervisor (name and email) and his / her institution

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Would you like to submit a short paper for the Conference Proceedings (Yes / No)?

Yes

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