

$Y(1S) R_{AA}$ in HIN-10-006

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$ y $	p_T [GeV/ c]	centrality	$\langle p_T \rangle$ [GeV/ c]	$\frac{1}{T_{AA}} \cdot \frac{dN}{dy}$ [nb]	R_{AA}
0.0–2.4	0–6.5	0–100%	3.03	$0.293 \pm 0.057 \pm 0.051 \pm 0.02$	$0.44 \pm 0.10 \pm 0.06 \pm 0.04$
	6.5–10		8.04	$0.093 \pm 0.028 \pm 0.017 \pm 0.01$	$0.91 \pm 0.38 \pm 0.13 \pm 0.08$
	10–20		13.17	$0.066 \pm 0.016 \pm 0.011 \pm 0.004$	$1.77 \pm 0.76 \pm 0.24 \pm 0.15$
	0–20		6.79	$0.485 \pm 0.066 \pm 0.084 \pm 0.03$	$0.63 \pm 0.11 \pm 0.09 \pm 0.05$
0.0–1.2	0–20	0–100%	6.44	$0.495 \pm 0.091 \pm 0.086 \pm 0.03$	$0.54 \pm 0.12 \pm 0.08 \pm 0.04$
1.2–2.4			6.60	$0.498 \pm 0.097 \pm 0.088 \pm 0.03$	$0.85 \pm 0.25 \pm 0.12 \pm 0.07$
0.0–2.4	0–20	0–10%	6.65	$0.347 \pm 0.096 \pm 0.069$	$0.45 \pm 0.14 \pm 0.08 \pm 0.03$
		10–20%	6.88	$0.643 \pm 0.144 \pm 0.118$	$0.84 \pm 0.21 \pm 0.13 \pm 0.05$
		20–100%	6.08	$0.517 \pm 0.101 \pm 0.101$	$0.68 \pm 0.15 \pm 0.11 \pm 0.04$
		0–20%	6.85	$0.467 \pm 0.081 \pm 0.093$	$0.61 \pm 0.13 \pm 0.11 \pm 0.04$

Table 9. Yield per unit of rapidity of $\Upsilon(1S)$ divided by T_{AA} and nuclear modification factor R_{AA} as a function of $\Upsilon(1S)$ rapidity, p_T , and collision centrality. The average p_T value for each bin is given. Listed uncertainties are statistical first, systematic second, and global scale third. The latter includes the uncertainties on the pp integrated luminosity and, for centrality integrated bins, on T_{AA} .

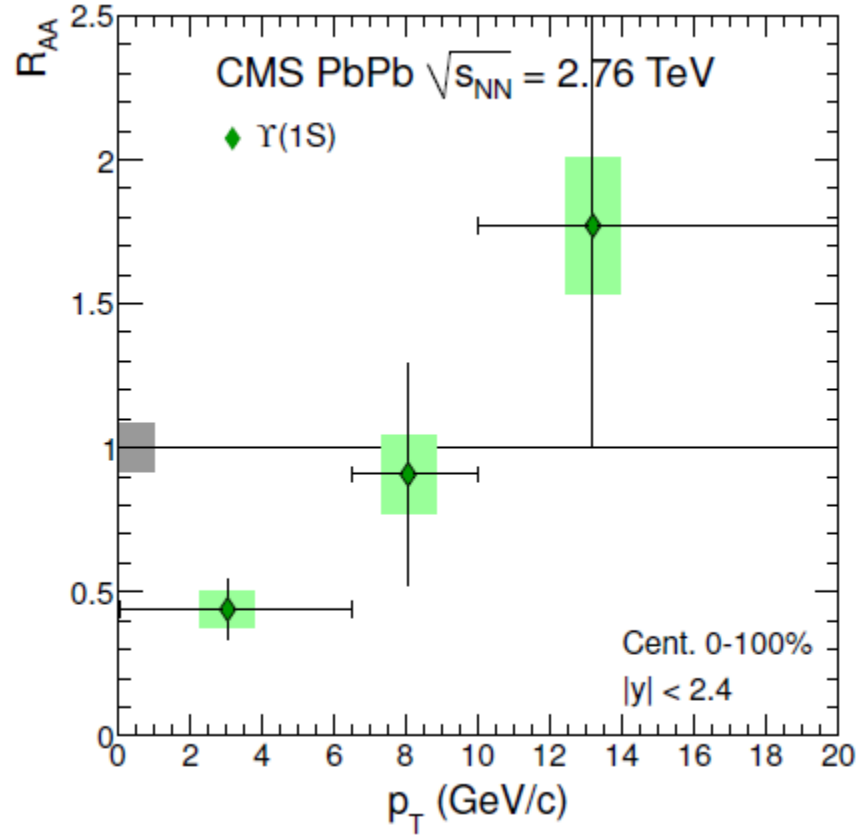


Figure 15. Left: $\Upsilon(1S)$ yield divided by T_{AA} in PbPb collisions (green diamonds) as a function of p_T . The result is compared to the cross section measured in pp collisions (black crosses). The global scale uncertainties on the PbPb data due to T_{AA} (5.7%) and the pp integrated luminosity (6.0%) are not shown. Right: nuclear modification factor R_{AA} of $\Upsilon(1S)$ as a function of p_T . A global uncertainty of 8.3%, from T_{AA} and the integrated luminosity of the pp data sample, is shown as a grey box at $R_{AA} = 1$. Points are plotted at their measured average p_T . Statistical (systematic) uncertainties are shown as bars (boxes). Horizontal bars indicate the bin width.