

Supplementary material for LHCb-PAPER-2015-037

1 Supplementary Material

This appendix contains supplementary material that will be posted on the public CDS record but will not appear in the paper.

In Fig. 1 the total efficiency for different J/ψ kinematic bins is shown.

In Fig. 2, the prompt J/ψ production cross-sections are compared with the NRQCD prediction [?] in different (p_T, y) bins of the J/ψ meson.

In Fig. 3, the ratio of prompt J/ψ production cross-sections at $\sqrt{s} = 13$ TeV with respect to $\sqrt{s} = 8$ TeV are compared with the NRQCD prediction [?] in different (p_T, y) bins of the J/ψ meson.

In Fig. 4, the ratio of prompt J/ψ production cross-sections at $\sqrt{s} = 13$ TeV over those at $\sqrt{s} = 8$ TeV are compared with the NRQCD prediction [?] in bins of y of the J/ψ meson integrated over p_T in the range of $7 < p_T < 14$ GeV.

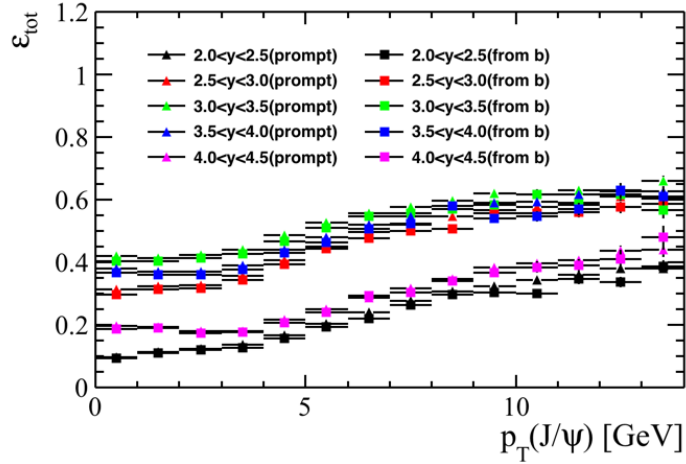


Figure 1: The total efficiency for prompt J/ψ and J/ψ -from- b mesons as a function of p_T in different bins of y .

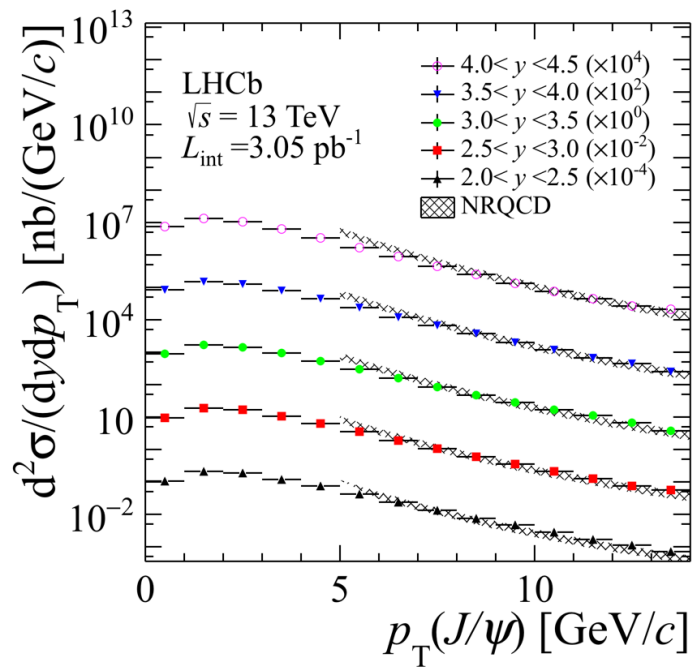


Figure 2: Measurements of production cross-sections for prompt J/ψ mesons as a function of p_T in different bins of y , compared with NRQCD [?]. Results in different y bins are scaled as specified in the legends to improve the visibility.

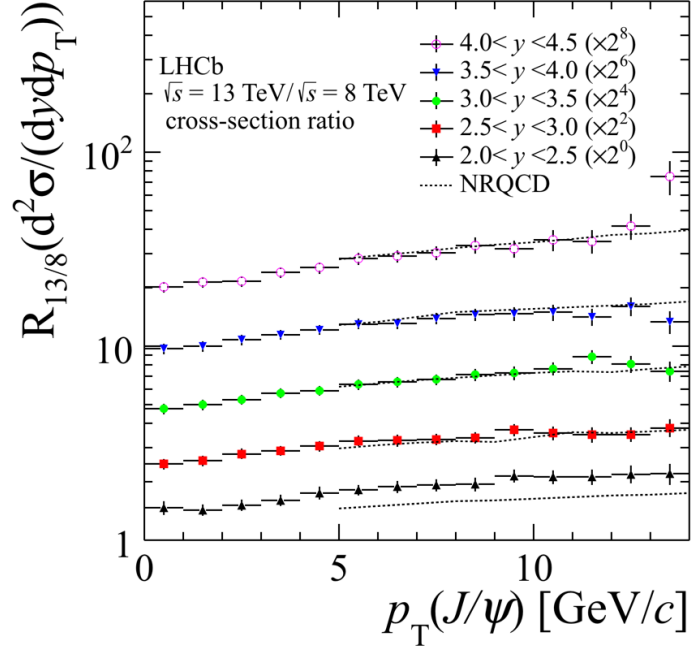


Figure 3: Ratio of differential cross-sections between measurements at $\sqrt{s} = 13$ TeV and $\sqrt{s} = 8$ TeV in bins of (p_T, y) , compared with the NRQCD calculation [?]. Results in different y bins are scaled as specified in the legends to improve the visibility.

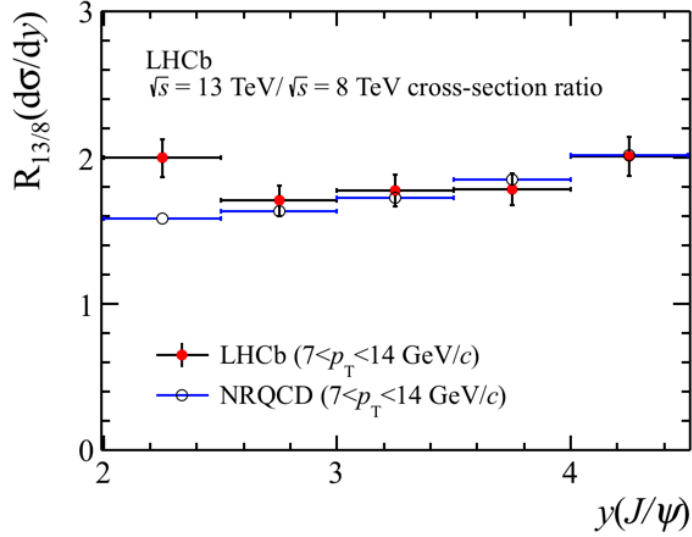


Figure 4: Ratio of cross-sections between measurements at $\sqrt{s} = 13$ TeV and $\sqrt{s} = 8$ TeV in bins of y integrated over p_T in the range of $7 < p_T < 14$ GeV, compared with the NRQCD prediction [?].