

Prospects for HL-LHC

***inclusive prod.**

◆ Update with larger statistics

✓ Associated production, e.g. di- J/ψ , $J/\psi + \Upsilon$, $J/\psi + \psi(2S)$

◆ New energy scale (even now)

✓ J/ψ , $\psi(2S)$, Υ polarisation at 13 TeV

✓ χ_c production at 13 TeV

◆ New process

✓ χ_{c0} production: challenging

✓ h_c production: very challenging

✓ χ_c polarisation

✓ Associated production, e.g. $J/\psi + \chi_c$, $J/\psi + \eta_c$, triple charm, $J/\psi + \Upsilon + \phi$

◆ (Not entirely) new observables

✓ polarisation in associated production (starting from di- J/ψ)

✓ production vs multiplicity

✓ quarkonium + γ

✓ quarkonium in jet