

pp 27.7 pb⁻¹ $\sqrt{s} = 5.02$ TeV

2015 HI Soft Muon ID

 $l_{J/\psi}$ cuts applied

HLT_HIL1DoubleMu0_v1

 $6.5 \leq p_T^{\mu\mu} < 30.0$ GeV/c $0.0 \leq |y^{\mu\mu}| < 1.6$

● Data

— Total fit

--- Background

CMS*Preliminary* $N_{\text{bkg}}^{\text{rr}} = 29520 \pm 213$ $N_{J/\psi}^{\text{PP}} = 138181 \pm 386$ $R_{\psi(2S)/J/\psi}^{\text{PP}} = 0.0412 \pm 0.0007$ $\alpha_{J/\psi}^{\text{PP}} = 1.8800 \pm 0.0000$ $f_{J/\psi}^{\text{PP}} = 0.4952 \pm 0.0227$ $\lambda_1^{\text{PP}}_{\text{bkg}} = -0.1594 \pm 0.0119$ $\lambda_2^{\text{PP}}_{\text{bkg}} = 0.0702 \pm 0.0111$ $\lambda_3^{\text{PP}}_{\text{bkg}} = 0.0236 \pm 0.0111$ $m_{J/\psi}^{\text{PP}} = 3.09278 \pm 0.00008$ GeV/c² $n_{J/\psi}^{\text{PP}} = 1.7400 \pm 0.0000$ $(\sigma_2/\sigma_1)^{\text{PP}}_{J/\psi} = 1.841 \pm 0.018$ $\sigma_1^{\text{PP}}_{J/\psi} = 20.66 \pm 0.37$ MeV/c²Events / (0.05 GeV/c²)

Pull

 $\chi^2/\text{ndof} = 94 / 36$ $m_{\mu^+\mu^-}$ (GeV/c²)