

Abstract Submitted  
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**Simultaneously Produced Upsilon and Jpsi Production Cross Section** KAMURAN DILSIZ, University of Iowa, CMS COLLABORATION — The observation and cross section of simultaneously produced  $\Upsilon$  and  $J/\psi$  mesons are performed using  $20 \text{ fb}^{-1}$  integrated luminosity in proton-proton collisions at 8 TeV energy recorded with the CMS detector. Both mesons are fully reconstructed from their final states. To extract the signal yield, an extended maximum likelihood fit is used on two (invariant mass of  $\Upsilon$  and  $J/\psi$ ) and three (invariant mass of  $\Upsilon$  and  $J/\psi$ , and  $c\tau$ ) event variables. A data-based method is used to study muon reconstruction, trigger and offline selection efficiencies. The cross section in the fiducial region, defined as  $p_T^\mu > 3.5 \text{ GeV}/c$  and  $|\eta^\mu| < 2.4$  for  $\Upsilon$  meson and as  $p_T^\mu > 2 \text{ GeV}/c$  and  $|\eta^\mu| < 2.4$  for  $J/\psi$  meson, will be reported.

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