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## Quarkonia production in ultra-peripheral PbPb collisions at LHCb

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Measurements of quarkonia production in peripheral and ultra-peripheral heavy-ion collisions are sensitive to photon-photon and photon-nucleus interactions, the partonic structure of nuclei, and to the mechanisms of vector-meson production. LHCb has studied production of the  $J/\psi$  and  $\psi(2S)$  charmonium states in peripheral and ultra-peripheral collisions using PbPb data at forward rapidity, obtaining the highest precision currently accessible. Here we will present these measurements, along with comparisons with the latest theoretical models and with results from other experiments. Future UPC measurements with the upgraded LHCb detector in Run 3 will also be discussed

### Category

Experiment

### Collaboration (if applicable)

LHCb

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