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Photoproduction of J/Psi in ultra-peripheral PbPb collisions at center-of-mass energy of 2.76 TeV in CMS RAYMOND PATRICK KENNY III, The University of Kansas, CMS COLLABORATION — Ultra-peripheral collisions (UPCs) of heavy ions involve long range electromagnetic interactions at impact parameters larger than twice the nuclear radius. At TeV energies, the strong electromagnetic field due to the coherent action of the Z=82 proton charges generates a large flux of photons, which can be used for high-energy photoproduction studies. Heavy vector mesons (for example J/psi, Psi', Upsilon) produced in electromagnetic interactions provide direct information on the parton distribution functions in the nucleus at very low values of Bjorken-x. These events are characterized by a very low hadron multiplicity. The wide pseudorapidity coverage of the CMS detectors is used to separate such events from very peripheral nuclear interactions. The CMS experiment has excellent capabilities for the measurement of the heavy vector mesons in the di-muon decay channel using the tracker and the muon chambers. This analysis demonstrates CMS's capabilities for measuring J/Psi in ultra-peripheral collisions.

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