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Parton distribution functions probed in ultraperipheral collisions at the CERN Large Hadron Collider[1] JAMES THOMAS, C.A. BERTULANI, N. BRADY, Texas A&M University-Commerce, D. B. CLARK, E. GODAT, Southern Methodist University, A. KUSINA, Laboratoire de Physique Subatomique et de Cosmologie, F. OLNESS, Southern Methodist University — Vector meson production in ultra-peripheral pA and AA collisions at the CERN Large Hadron Collider (LHC) are very sensitive to Parton Distribution Functions (PDF) as well as to their leading-order, next-to-leading-order, and medium corrections. This process is a complimentary tool to explore the effects of different PDFs in particle production in proton-nucleus and nucleus-nucleus central collisions. Existing and forthcoming data available, e.g., from ALICE and CMS, may be used in conjunction with our theoretical predictions to constrain the PDFs which best match their event rates. We make predictions for rapidity distributions and for cross sections of J/Psi, psi(2S), and Upsilon production at $\sqrt{s_{NN}} = 2.76$ TeV and $\sqrt{s_{NN}} = 5.02$ TeV.

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