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Central exclusive production of J/psi and psi(2S) mesons at LHCb

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In quasi-elastic proton-proton collisions at the LHC, central exclusive production (CEP) of vector mesons can take place via the fusion of a photon and a pomeron (a colourless strongly-coupled object with the quantum numbers of the vacuum), while the protons remain intact. The central exclusive production of J/ψ and ψ(2S) mesons provides clean events, which is uncommon at hadron colliders. This presentation shows results for CEP production of J/ψ and ψ(2S) mesons at LHCb, both in pp collisions at a centre of mass energy, $\sqrt{s}$, of 13 TeV and in PbPb collisions at $\sqrt{s_{NN}} = 5$ TeV.

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Session Classification: Day 2 (mostly exclusive reactions)

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