

# Semiexclusive production of vector mesons in proton-proton collisions with electromagnetic dissociation of protons

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## Collaboration

## Abstract content

We will discuss the semiexclusive production of vector mesons in proton-proton collisions with electromagnetic dissociation of one of the protons. Several differential distribution in missing mass ( $M_X$ ), or single-particle variables related exclusively to the produced vector meson are calculated for pp center-of-mass energies 7 and 13 TeV. The cross sections and distributions are compared to the cross section of the purely exclusive reaction  $pp \rightarrow pVp$ . For electromagnetic dissociation the important property is that the  $p\gamma^* \rightarrow Xp$  transitions are given by the electromagnetic structure function of proton. In our calculations we used different parametrizations of this function and discuss how it is constrained by data on virtual photoabsorption on a proton.

The talk is based on papers

1. Anna Cisek, Wolfgang Schaefer and Antoni Szczurek Semiexclusive production of  $J/\psi$  mesons in proton-proton collisions with electromagnetic and diffractive dissociation of one of the protons Phys. Lett. **{\bf B769}** (2017) 176-186; e-Print: arXiv:1611.08210 [hep-ph]
2. paper on semiexclusive production of vector mesons ( $\Upsilon, \phi$ ) in preparation

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