

# Cross-section measurements and anomalous gauge couplings searches in multileptonic WZ decays with the CMS detector at 13 TeV

*Friday 6 July 2018 20:15 (15 minutes)*

WZ production is one of the dominant multiboson production processes at the LHC energies. Thus, a good understanding of this process improves our understanding of the Standard Model (SM).

Specifically, the all leptonic final state constitutes an irreducible background in multiple SM and beyond the Standard Model (BSM) searches for low cross-section processes in multileptonic channels. Thus, a precise measurement of its total and differential cross-section is needed to increase the reach of general analysis including multiple leptons final states.

Additionally, the proper WZ cross-section measurement is a handle to BSM physics in terms of the hypothesized existence of anomalous gauge couplings which might modify said quantity. The WZ process is expected to provide special sensitivity in the studies of anomalous charged triple gauge couplings (ACTG) as a handle to study the behaviour of the WWZ vertex.

New results with the full 2016 dataset are presented including the inclusive and differential measurement of the WZ cross-sections as well as the computation of precise confidence regions for different configurations of ACTG presence.

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**Session Classification:** POSTER

**Track Classification:** Posters