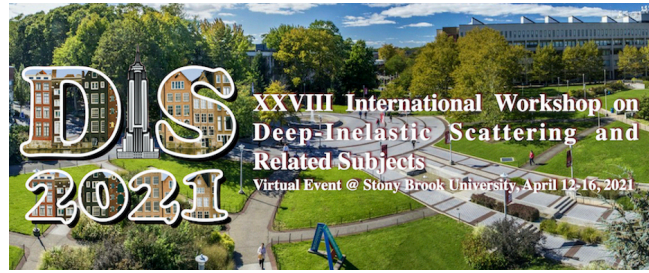


# XXVIII International Workshop on Deep-Inelastic Scattering and Related Subjects



Contribution ID: 404

Type: **Contributed Talk**

## WW boson pair production at 13 TeV using CMS data

*Thursday, 15 April 2021 08:36 (15 minutes)*

A measurement of the  $W^+W^-$  boson pair production cross section in proton-proton collisions at 13 TeV is presented. The data used in this study are collected with the CMS detector at the CERN LHC and correspond to an integrated luminosity of  $35.9 \text{ fb}^{-1}$ . The  $W^+W^-$  candidate events are selected by requiring two oppositely charged leptons (electrons or muons) aiming to measure the total production cross section, the fiducial cross sections, and the normalized differential cross sections within the fiducial region. Finally, a dilepton invariant mass distribution is used to probe for physics beyond the standard model in the context of an effective field theory, and constraints on the presence of dimension-6 operators are derived.

**Presenter:** FERNÁNDEZ MANTECA, Pedro (IFCA (University of Cantabria - CSIC))

**Session Classification:** Electroweak Physics and Beyond the Standard Model

**Track Classification:** Electroweak Physics and Beyond the Standard Model