

30th International Symposium on Lepton Photon Interactions at High Energies



Contribution ID: 235

Type: **Parallel session talk**

Search for heavy resonances decaying to bosons and for new resonances coupling to third generation quarks at CMS

Wednesday, January 12, 2022 9:00 AM (20 minutes)

Searches for new resonances in di-boson (VV, VH, HH, where $V = W, Z$) and tri-boson (VVV) final states, with the CMS detector are presented. The results are based on the large dataset collected during Run 2 of the LHC at a centre-of-mass energy of 13 TeV. The analyses are optimised for high sensitivity over a large range in resonance mass. Jet substructure techniques are used to identify hadronic decays of highly-boosted W, Z, and H bosons. A statistical combination of these searches provides the most stringent constraints on heavy vector bosons with large couplings to standard model bosons and fermions.

Primary authors: GOERLACH, Ulrich (Centre National de la Recherche Scientifique (FR)); CMS

Presenter: LYU, Xudong (Peking University (CN))

Session Classification: Beyond the Standard Model

Track Classification: Beyond the Standard Model