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Search for heavy resonances decaying into W, Z, H bosons at CMS

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A summary of the searches for heavy resonances decaying in dibosons is presented, performed on data produced by LHC p-p collisions at sqrt(s) = 13 TeV and collected with the CMS detector during 2016. The common feature of these analyses is the boosted topology, namely the decay products of the considered bosons (both electroweak (W, Z) bosons and the Higgs boson) are expected to be highly energetic and close in angle, leading to a non-trivial identification of the particles involved in the final state (quarks, leptons, neutrinos). Various background estimation techniques are exploited, based on data-MC hybrid approaches or relying only on control regions in data. Results are interpreted in the context of the Warped Extra Dimension and Heavy Vector Triplet theoretical models, two possible scenarios beyond the standard model.

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