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(Generalized) Tri-Boson Signals from a Warped Extra Dimension

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Simple modifications of existing extensions of the Standard Model (SM) can dramatically alter its signals at the LHC. We illustrate this general point within the specific framework of SM fields propagating in a warped extra dimension, which can address both the Planck-weak and flavor hierarchy problems of the SM. We consider the possibility that,
among the SM particles, only the gauge bosons live in an extended region of the extra dimension. We show that such a scenario can suppress the usual decay channels of the gauge Kaluza-Klein (KK) excitations involving pairs of top quark and Higgs/W/Z gauge bosons. In turn, this leads to the emergence of novel final states consisting of three
SM gauge bosons in a variety of combinations and forms. We argue that new, dedicated searches are motivated for digging out such signals.

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