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## A weakly constrained $W'$ at the early LHC

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We discuss, within an effective approach, the phenomenology of a charged  $W'$  vector transforming as an iso-singlet under the Standard Model gauge group. Firstly, we present bounds from current data, finding that these are quite weak for suitable choices of the right-handed quark mixing matrix. Then, the resonant production at the early LHC of such a weakly constrained  $W'$  is discussed. We start by estimating the reach in the dijet final state, which is one of the channels where a  $W'$  signal would first appear, and then we analyse prospects for the more challenging discovery of  $W'$  decays into  $W$  gamma and  $WZ$ . We show in particular that the former can be used to gain insight on the possibly composite nature of the resonance.

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