

Classification for Alternative 3-3-1 models with exotic electric charges

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We report the most general classification of 3-3-1 models with $\beta = \sqrt{3}$. We found several solutions where anomaly cancellation occurs among fermions of different families. These solutions are particularly interesting as they generate non-universal heavy neutral vector bosons. Non-universality in the SM fermion charges under an additional gauge group generates Charged Lepton Flavor Violation (CLFV) and Flavor Changing Neutral Currents (FCNC); we discuss under what conditions the new models can evade constraints coming from these processes. In Addition, we also report LHC constraints.

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