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FLAVOUR CHANGING YUKAWA COUPLING IN TWO HIGGS DOUBLET MODELS

Content :

We consider a special case of 2HDM type III known as BGL. These models have tree level flavour changing neutral couplings in the Higgs sector. As a result of a flavour symmetry these couplings are suppressed by the CKM and the PMNS matrices and/or by light masses. In fact these models can be considered as implementing the MFV hypothesis. After imposing the diagonal or flavour blind constraints from LHC, we present the predictions on several flavour changing processes like $t \rightarrow hu, hc$, leptonic Higgs decays as $h \rightarrow \mu\tau$ as well as hadronic decays $h \rightarrow bs, bd$. We also comment on the low energy constraints.

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