

## Anomalous Resonant Production of the fourth family quarks at the LHC

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Considering the present limits on the masses of fourth family quarks from the Tevatron experiments, the fourth family quarks are expected to have mass larger than the top quark. Due to their expected large mass they could have different dynamics than the quarks of three families of the Standard Model. The resonant production of the fourth family  $t'$  and  $b'$  quarks are studied via anomalous processes  $gq_i \rightarrow t'$  and  $gq_j \rightarrow b'$  (where  $q_i = u, c$  and  $q_j = d, s, b$ ) at the LHC. The signatures of such processes are discussed within the SM and anomalous decay modes. The sensitivity to anomalous coupling  $\kappa/\Lambda$  can be reached down to 0.01 TeV<sup>-1</sup>.

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