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## Model independent analysis of the forward-backward asymmetry of top quark production at the Tevatron

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Motivated by a possible anomaly in the forward-backward (FB) asymmetry of top quark ( $A_{FB}$ ) observed at the Tevatron, we perform a model independent analysis on  $q\bar{q} \rightarrow t\bar{t}$  using an effective lagrangian with dim-6 four-quark operators.

We derive necessary conditions on new physics structures and the couplings that are consistent with the  $t\bar{t}$  production cross section and  $A_{FB}$  measured at the Tevatron, and discuss possible new physics scenarios that could generate such dim-6 operators.

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