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Anomalous top quark couplings, FCNC, and EFT interpretations in CMS

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Top quark production can probe physics beyond the SM in different ways. Some processes, and especially certain angular correlations, are sensitive to the existence of anomalous top quark couplings. In the SM, flavour-changing neutral currents (FCNC) are forbidden at tree level and are strongly suppressed in loop corrections. Several extensions of the SM incorporate significantly enhanced FCNC behaviour that can be directly probed in top quark processes. Current approaches adopting an EFT framework allow describing effects of new physics in a model independent way. This talks reviews the current limits on possible anomalous couplings of the top quark, FCNC searches in the top sector, and EFT interpretations.

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