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## Measurement of the $t\bar{t}$ spin correlations and top quark polarization in dileptonic channel

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The degree of top polarization and strength of  $t\bar{t}$  correlation are dependent on production dynamics, decay mechanism, and choice of the observables. At the LHC, measurement of the top polarization and spin correlations in  $t\bar{t}$  production is possible through various observables related to the angular distribution of decay leptons. A measurement of differential distribution provides a precision test of the standard model of particle physics and probes for deviations, which could be a sign of new physics. In particular, the phase space for the super-symmetric partner of the top quark can be constrained. We present updates to the recent top quark polarization and spin correlation studies in dileptonic channel at the Compact Muon Solenoid experiment.

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