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Measurement of the top quark-antiquark spin correlations at 13 TeV using the CMS detector

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Measurements of the correlation of the spins of the top quark and top antiquark for top quark-antiquark pairs in pp collisions are discussed. Spin correlations are sensitive to a variety of new physics contributions and could be enhanced compared to the standard model expectation. Dilepton final states are employed to measure angular distributions in data accumulated with the CMS detector at a center-of-mass energy of 13 TeV. The angular distributions of the leptons are unfolded to the parton level and used to extract the spin correlation coefficient. Results are compared to the standard model prediction to study potential new physics contributions.

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