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### Top quark physics at D0

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We give an overview of measurements of properties of the top quark and searches for new physics in the top sector by the D0 experiment. We show data of an integrated luminosity of up to 5.3 fb<sup>-1</sup> recorded at a centre-of-mass energy of 1.96 TeV. Highlights are measurements of the top-anti-top quark pair production cross section, of top quark couplings and width, of the top-anti-top quark spin correlations and of the top quark mass and searches for new physics in the production and decay of top quarks. We also report on the observation of the electroweak production of single top quarks.

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