

# Top-quark physics at high-energy CLIC operation

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The Compact Linear Collider (CLIC) is a mature option for a future electron-positron collider operating at centre-of-mass energies of up to 3 TeV. CLIC will be built and operated in a staged approach with three centre-of-mass energy stages currently assumed to be 380 GeV, 1.5 TeV and 3 TeV. This talk discusses the prospects for top-quark physics at the two TeV-scale CLIC energy stages based on benchmark analyses using full detector simulations. New studies of top-quark pair production at high-energy CLIC operation make use of jet-substructure techniques originally developed for the LHC. Forward-backward and polarisation asymmetries, as well as so-called optimal observables, are studied. The top Yukawa coupling and the CP properties in the  $t\bar{t}H$  coupling are best probed in 1.5 TeV collisions. CLIC operation at 3 TeV also enables the study of top-quark pair production through Vector Boson Fusion. The BSM sensitivity provided by the top physics program at CLIC is illustrated using Effective Field Theory (EFT).

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