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Physics at CLIC

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The Compact Linear Collider (CLIC) is a proposed high-luminosity linear electron-positron collider at the energy frontier. For optimal physics potential CLIC is foreseen to be built and operated in a staged approach, with three centre-of-mass energy stages; ranging from a few hundred GeV up to 3 TeV. The initial energy stage is planned to operate just above the top-quark pair production threshold around 380 GeV, with focus on precision measurements of the Higgs-boson and the top-quark properties. Reaching precisions beyond the HL-LHC reach, this programme further provides very competitive constraints on models describing physics beyond the Standard Model. The subsequent energy stages of CLIC will focus on measurements of rare Higgs-boson processes, as well as direct and indirect searches for new physics, and precision measurements of possible new particles. This talk will summarise and discuss analysis results from the Higgs physics programme and the top-quark physics programme. The results presented are based on full detector simulations including relevant background processes.

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