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Potential for New Physics searches in e+e- collisions at CLIC (sqrt-s 1.4 TeV -3 TeV)

There is a general agreement that the SM does not provide a complete description of particle physics. Collisions at the energy frontier, as well as precision measurements of fundamental observables, have the possibility to shed light on the nature of New Physics (NP). New input is therefore expected from upcoming high-energy and high-luminosity LHC data. The preparation for future projects at the energy frontier will be motivated by LHC data and shall hold the promise to complement the LHC reach and/or provide insight at increased precision. The CLIC e+e- collider with its capabilities to run at center-of-mass energies from a few hundred GeV up to 3 TeV fulfills these expectations. The talk gives and overview of the CLIC physics potential in domains such as: extended Higgs sector, Supersymmetry, Z'physics and other models. Most studies presented are based on detailed detector simulation studies including overlay of background from physics processes and beam-induced backgrounds.

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