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The ILD Detector: A Versatile Detector for an Electron-Positron Collider at Energies up to 1 TeV

The International Large Detector, ILD, is a detector concept for an experiment at a future high energy lepton collider. The detector has been optimised for precision physics in a range of energies from 90 GeV to about 1 TeV. ILD features a high precision, large volume combined silicon and gaseous tracking system, together with a high granularity calorimeter, all inside a central solenoidal magnetic field. The paradigm of particle flow has been the guiding principle of the design of ILD. ILD is based mostly on technologies which have been demonstrated by extensive research and test programs. The ILD concept is proposed both for linear and circular lepton collider, be it at CERN or elsewhere. The concept has been developed by a group of nearly 60 institutes from around the world, and offers a well developed and powerful environment for science and technology studies at lepton colliders. In this document, the required performance of the detector, the proposed implementation and the readiness of the different technologies needed for the implementation are discussed.

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