International Workshop on Future Linear Colliders



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The International Large Detector (ILD): Status and Plans

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The International Large Detector (ILD) is a detector designed primarily for the International Linear Collider (ILC), a high-luminosity linear electron-positron collider with an initial center-of-mass energy of 250 GeV, extendable to 1 TeV.

The ILD concept is based on particle flow for overall event reconstruction, which requires outstanding detector capabilities including superb tracking, very precise detection of secondary vertices and high-granularity calorimetry. In the past years ILD has focused on building and testing technological prototypes of the key sub-detector technologies, scalable to the full ILD size, studying their integration into a coherent detector, benchmarking the ILD performance and preparing for an optimization of the overall ILD size and costing. The current status has been made public in the ILD Interim Design Report (IDR, 2020) of interest for any future e+e-collider detector. A particular strength of the ILD concept is the integration of a well developed concept for a detector, based on well understood prototypes, with a well-developed and available suite of simulation and reconstruction tools, which allow detailed and reliable studies to be performed.

ILD as a general purpose detector optimized for high precision science at a e+e- collider can also serve as an excellent basis to compare the science reach and detector challenges for different collider options. ILD is actively exploring possible synergies with other Higgs/ EW factory options.

In this talk we will report on the state of the ILD detector concept, report on recent results and discuss selected examples of studies of an ILD detector at other colliders than ILC.

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