

Detector Concepts at the Linear Collider

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An electron positron collider will be an essential tool to complement the large hadron collider in its quest to understand the physics of the Terascale. Experimentation at such a collider will be a challenge to the experimenter, and very different from experimentation at the large hadron collider. The most mature electron positron collider concept, the ILC, has recently validated two detector concepts as suitable and realistic for an experiment at this facility. Both concepts are multi-purpose experiments, which put a special emphasis on delivering precision results. While the radiation environment at the ILC benign compared to a hadron machine, the requirements on the detector both on terms of resolution and in terms of rate capability, are far from trivial.

Over the last decade an intense development effort has been underway, to develop and proof detection technologies to be used at the ILC, and to develop fully integrated detector concepts. Depending on the final energy of the collider, significant further work will be needed until these techniques can be qualified as production ready. In this talk the state of the detector concepts will be reviewed. The major projects planned for the next few years to complete the concepts will be discussed.

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