



Status of ILD

Ties Behnke

24.10.2018

Arlington, TX

<http://www.uta.edu/physics/lcws18>

LCWS²⁰₁₈

ARLINGTON, TEXAS

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Texas

Agenda for today



| | | | |
|----------------|-----------|---|-------|
| 2:00 PM | → 2:20 PM | Introduction, general ILD status <i>Speaker:</i> Ties Behnke (DESY) | ⌚ 20m |
| 2:20 PM | → 2:40 PM | Technical news from ILD <i>Speaker:</i> Claude Vallee (DESY/CPPM) | ⌚ 20m |
| 2:40 PM | → 3:00 PM | Integration status of ILD <i>Speaker:</i> Roman Poeschl (Centre National de la Recherche Scientifique (FR)) | ⌚ 20m |
| 3:00 PM | → 3:20 PM | Status of Software and production for the ILD analyses <i>Speaker:</i> Frank Gaede | ⌚ 20m |
| 3:20 PM | → 3:50 PM | Summary Status benchmark analyses <i>Speaker:</i> Keisuke Fujii | ⌚ 30m |
| 3:50 PM | → 4:10 PM | coffee | ⌚ 20m |
| 4:10 PM | → 4:40 PM | Costing ILD: an update and status report <i>Speaker:</i> Henri Videau (LLR-Ecole polytechnique) | ⌚ 30m |
| 4:40 PM | → 4:55 PM | Report from the IA Chair <i>Speaker:</i> Marc Winter (Centre National de la Recherche Scientifique (FR)) | ⌚ 15m |

Please keep to your times, as there is a panel discussion on the ILC statement right after this meeting!

ILD: the next few months



1. Prepare our contribution to the European Strategy process
 - Short description of the ILD detector concept
 - Why ILD
 - Who is ILD
 - What does ILD cost

2. Write the ILD Design Report (IDR)
 - Update of the ILD DBD report
 - Concise, but complete description of ILD
 - Heavy on benchmarking and arguing why ILD looks as it does

The documents:



The different documents are available on overleaf:

European Strategy Document for ILD:

<https://www.overleaf.com/read/tqfjghmdjrzp>

ILD Design Report (IDR)

<https://www.overleaf.com/read/jrxfbssqfgs>

will allow you to see the latest draft (which is still very preliminary)

European Strategy Document



CONTENTS

- I. Introduction
- II. History of the ILD detector concept
- III. The ILD detector design: requirements
- IV. Implementation of the ILD detector
 - A. Vertexing system
 - B. Tracking System
 - C. Calorimeter System
 - D. The Forward System
 - E. The muon system
 - F. Detector Integration
- V. Science with ILD
- VI. Integration of ILD into the ILC accelerator
- VII. The ILD Collaboration
- VIII. Conclusion and Outlook

Current structure for the document

- Will refer to the other two ILC documents, to minimise repetition
- Concise, little details

Schedule:

- First complete text November 9
- Iteration with ET and (2. step) ILD
- Submission Dec 18 to ESU

European Strategy Document



CONTENTS

| | |
|--|--|
| I. Introduction | |
| II. History of the ILD detector concept | Current structure for the document |
| III. The ILD detector design: requirements | <ul style="list-style-type: none">• Will refer to the other two ILC |
| IV. Implementation of | <ul style="list-style-type: none">• The ILC, a global project: editor Jim Brau et al. (minimise repetition details)• The ILC: an European perspective: editor Juan Fuster et al.• The ILD detector concept at the ILC, editor Ties Behnke et al. |
| A. Vertexing system | |
| B. Tracking System | |
| C. Calorimeter System | |
| D. The Forward System | |
| E. The muon system | |
| F. Detector Integration | |
| V. Science with ILD | |
| VI. Integration of ILD | text November 9 |
| VII. The ILD Collaboration | <ul style="list-style-type: none">• Iteration with ET and (2. step) ILD• Submission Dec 18 to ESU |
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European Strategy Document



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ILD Design Report, IDR



Document under development, draft exists on overleaf:

<https://www.overleaf.com/read/jrxfbssqfgs>

(currently problems synchronising with svn version: apologies)

In today's meeting:

- Discuss the input to this document, discuss state of the contributions.

IDR structure



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What is in the IDR?



Current state of the art in technologies (hardware, software) and science results (analyses)

Current state of the art in integration this into ILD

Comparison of large and small to be best of our capabilities, related to science performance

Current estimate of the cost of ILD

Discussion of future developments, improvements, holes in the coverage.

Timeline for the IDR



First version of the text in all sections: before Christmas break

Iteration with the authors, consistency checks, etc etc: Jan/ Feb 2019

Circulation to the collaboration for comments: March 2019

The goal: have the document ready by spring 2019.

Still to be decided: How do we want to publish the report?

ILD Future



assuming, ILC receives a “green” light in Japan

- There will be an intermediate period, in which internationally the way ILC will move forward is being discussed
- In this time funding will remain limited and difficult
- ILC will be recognised as a project by people/ institutes/ funding agencies
- It is unclear how fast ILD will become a recognised project

R&D plan



Prepare an R&D plan for this interim period

- Together and relying on the R&D collaborations
- But based on the needs and requirements by ILD

Prepare an engineering plan for ILD

- Based on the current results
- Addressing the open ends and problems

See talks later today

Prepare an integration plan for ILD

- Continue and build on the current work, in particular the E-JADE work
- Strong interaction with the local ILC effort is needed

R&D funding



Funding will remain problematic in this interim period.

ILD will have to support as much as possible attempts to secure funding for this work, in the ILD context.

Governance



If ILC moves forward, we need to re-think the way we organise the experimental community/ the experiments

- Learn from LHC experiments
- Think about our structures
- How de-central do we want to be/ how central
- How do we approach the issue of open data/ open science

- Prepare to handle an expected significant growth of ILD

This interim period might be an excellent opportunity to discuss this on a broad basis and re-think some of the approaches to large collaborations we are used to.

ILD Collaborative Tools



ILD Web page: <http://www.ilcild.org>

- Transition to new server has happened
- Content is still marginal
- Help is very welcome to fill the WEB page and to continue to improve the logic

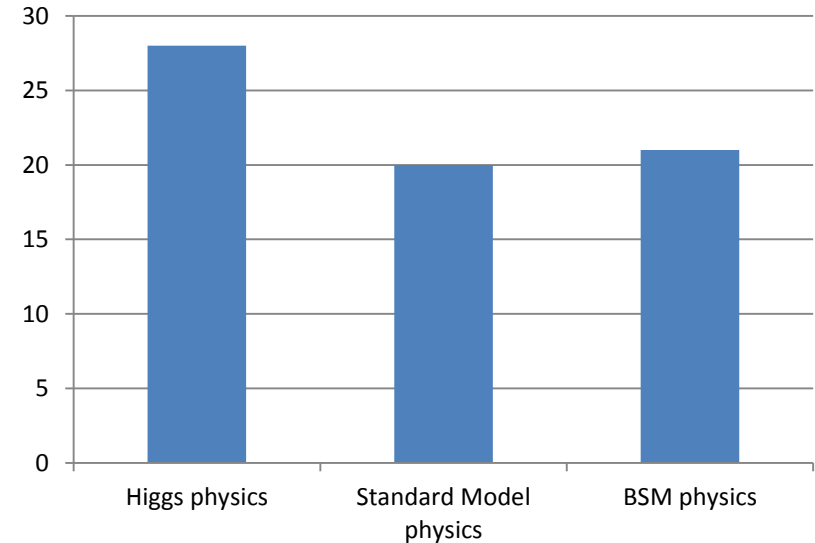
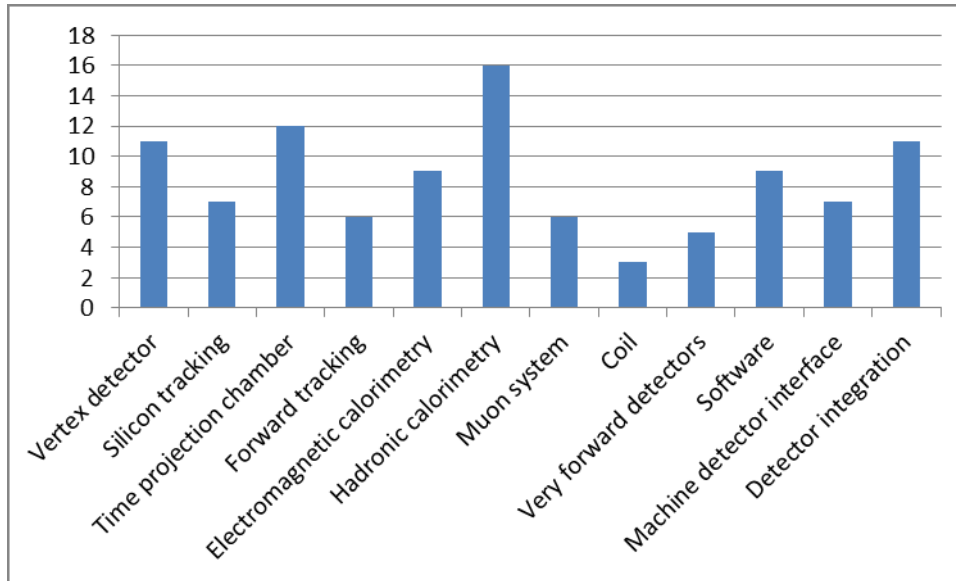
ILD confluence page <https://confluence.desy.de/display/ILD/ILD>

- Overall useful system, intensely used by some groups
- Problem of access for the complete ILD group is still not solved

ILD membership



Started process to confirm ILD membership last week
So far have received an answer from 43 groups:



ILD around the world

