INTERNATIONAL LARGE DETECTOR

I D R

ILD Detector Collaboration

2018

ILD Editors

Main Editors:
Ties Behnke, Kiyotomo Kawagoe

Tracking System:

Calorimeter System:

Outer Detector System:

Data Acquisition:

Machine Detector Interface:

Integration:
Karsten Buesser

Alignment:

Software:
Frank Gaede, Akiya Miyamoto

Performance:
Keisuke Fujii, Jenny List

Costing:
Henri Videau, Karsten Buesser

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Chapter 1
Introduction

Ties Behnke, Kiyotomo Kawagoe
2 pages

Chapter 2
Science with ILC

Keisuke Fujii, Jenny List
2 pages

Executive summary of the scientific goals of the ILC. Emphasis on 250 GeV. Prepare connection to choice of physics benchmarks, where details will of course come in the actual performance section.

Chapter 3
The ILC Environment

Karsten Buesser, Keisuke Fujii
3 pages

Chapter 4
The ILD detector concept

Ties Behnke, Kiyotomo Kawagoe
pages

4.1 The overall ILD concept

This is text describing the ILD detector concept.

4.2 Optimising ILD

Chapter 5
Detector Layout and Technologies

Claude Vallee
Claude Vallee, Karsten Buesser
1 pages

5.1 Overall structure of the detector

Claude Vallee, Karsten Buesser
1 pages

5.1.1 Global structure and parameters

Subdetector technical convener
4 pages

5.1.2 Subdetecor layout

Subdetector convener
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5.2 Subdetector technology status

Yasuhiro Sugimoto, Marc Winter
3 pages

5.2.1 Vertex detector

Alberto Ruiz
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5.2.2 Silicon inner tracking detectors

Paul Colas
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5.2.3 Time projection chamber

Jean Claude Brient, Tohru Takeshita, Felix Sefkow, Imad Laktineh
5 pages

5.2.4 Calorimeters

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Chapter 6
ILD Global Integration

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6.2.1	**Cavern ancillary services**	Yasuhiro Sugimoto
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6.3	**Mechanical structure and studies**	Matthew Wing, Taikan Sue-
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6.5	**Beam background studies**	Karsten Buesser, Uwe
6.6	**Alignment/ calibration procedures**	Daniel Jeans
		Graham Wilson
		1 pages

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7.1 **Modelling of ILC Conditions and Physics Processes**

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Chapter 8
Detector and Physics Performance

Frank Gaede
5 pages

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8.3.13	**WIMP Discovery Reach and Characterisation in the Mono-Photon Channel**

Graham Wilson, Frank Gaede,
Keisuke Fujii, Jenny List
10 pages

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Costing

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Bibliography