

# **Report from Physics Coordinator**

Keisuke Fujii  
Jan. 25, 2017

# ***The staging option resurfaced again!***

ILC Parameters Joint WG met on Jan. 4

- Our goal is to consider the physics potential for an ILC that starts operations at low energy, either 250 GeV, or 350 GeV.
- We need to make the 1st stage as attractive as possible.  
→ as high Luminosity as possible for the 1st stage.
- We could consider a different choice for the machine parameters.  
→ Official request sent to Shin Michizono for some machine manpower to investigate the possibility.
- Lyn has asked us to provide a first update on the physics impact of the staging possibilities by mid February (LCB/ICFA meeting).
- Jim, as a chair of the ILC parameters WG, asked the LCC physics WG to **define first phase milestones** by this meeting. The LCC physics WG started discussions on milestones. If you have suggestions let Jenny and I know.
- Jenny and Jumping are working on plots showing **time evolution of ILC physics**.

# Support Document that follows up the ICFA letter

First authors' meeting held on Sep. 9

Discussed the structure and basic ideas about contents together with how to share the writing.

2nd authors' meeting held on Oct. 13

Reviewed the status of the draft and discussed the request from JHEPC and possible readjustment of the contents of the document.

3rd authors' meeting held on Nov. 1

Reviewed the status of the draft (significant progress, but there are still missing parts, expected to be filled in shortly) and discussed the timeline until LCWS 2016.

4th authors' meeting held on Nov. 16

Reviewed the status of the draft (significant progress, most part filled). All the part to be filled and frozen by next Monday for final editing by Jenny and KF until Nov. 28.

5th authors' meeting held on Dec. 13

Reviewed the status of the draft. Loose ends identified. The current draft is 47 pages long but we decided not to shorten it but to provide an executive summary consisting of 10 or so bullet points. Disclaimer concerning staging options will be added in the introduction. Michael will expand and generalize the DM treatment.

***6th authors' meeting held today on Jan. 25***

Jenny, as the chief editor, made the draft into an at least formally complete form, eliminating loose ends. The draft now has abstract, 2-page executive summary, and conclusions which have been discussed intensively. ***We are planning to finish this up by the end of this month.***

# **MEXT ILC Advisory Pannel**

***6th meeting***

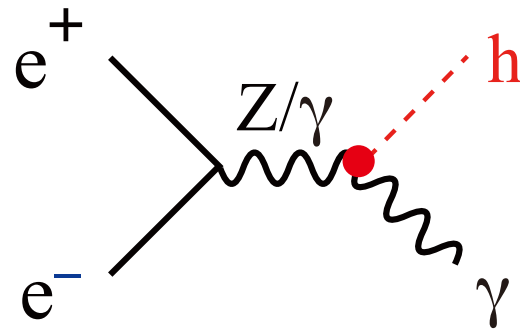
***scheduled on Feb. 1 (Wed.) 15:00-17:00 JST***

## **Agenda**

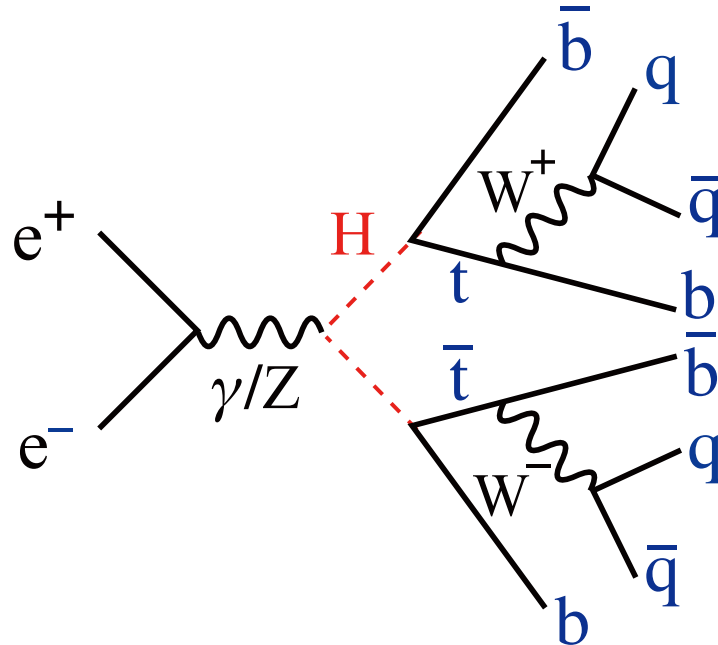
1. Recent status regarding the ILC project (Report)
2. Plan for further review and a new WG

# 1. New Analyses

1.  $e^+e^- \rightarrow \gamma h$  to study anomalous  $h\gamma\gamma$  and  $h\gamma Z$  couplings. (Yumi Aoki: Sokendai/KEK)



2.  $e^+e^- \rightarrow H^+H^- \rightarrow btbt$  (Christian Drews: Tohoku)  
8-jet final states (a generator being prepared)



# ***Physics focus schedule***

**Jan 25: BSM (Akiya)**

**Feb 7: *General ILD meeting***

**Feb 8: Top/QCD (Frank) : no coordinators' reports**

**Feb 22: Higgs/EW (Jenny)**

**Mar 7: *General ILD meeting***

**Mar 8: BSM (KF) : no coordinators' reports**

**Mar 22: Top/QCD (Akiya)**

**Conveners' ML:**

[ild-physics-conveners@desy.de](mailto:ild-physics-conveners@desy.de)

***Use this mailing list to send your talk request.***

## ***Subgroup meetings***

None scheduled at the moment