



Report from Physics Coordinators

Keisuke Fujii
on behalf of the Physics WG
November 10, 2021

ILC Situation in Japan

- *The political environment about ILC is now very good, thanks to strong US support, which continues. LDP won the Oct.31 election. Most members of PM Kishida's cabinet stay, including the finance minister, Mr. Shunichi Suzuki, who is from Iwate and a strong supporter of ILC. Secretary General of LDP has been replaced by Mr. Motegi, the former foreign minister who received the letter from the State Department expressing support for ILC.*
- *The climate change: The first stage of the ILC is 250 GeV but, now studies on energy upgrade even above 1 TeV is encouraged. Discussions on non-colliding beam experiments using the ILC facility on-going.*
- *The COVID19 infection cases dramatically decreased in Japan, and KEK is operating in the new normal mode.*
- *The International Development Team (IDT):*
 - *Working on Snowmass process to expand the ILC community.*
 - *Pre-Lab proposal submitted to MEXT together with a report on remaining issues pointed out by the MEXT panel and the SCJ committee.*
- *JAHEP ILC Steering Panel is doing background briefing to media, explanation to other fields. An X+ILC series of informal talks on going to involve new comers.*
- *ILC Japan, an executive body (led by Shoji Asai) of the JAHEP to advance various ILC related activities together with KEK started. Working for the review by the new MEXT Advisory Panel (1st meeting on July 29, 2nd on Oct. 14, 3rd on Oct. 18, no schedule known at present for the 4th one).*
- *Tohoku's upgraded ILC promotion organization, Tohoku ILC Project Development Center, actively promoting ILC, in spite of the COVID19 situation.*

IDT Phys/Det WG (WG3)

<https://linearcollider.org/team/wg3/>

WG3 Meeting every two weeks (last one 15h ago)

- ***ILCX reflections***
- ***Subgroup reports***

Physics Potential & Opportunity Group

- Schedule for regular open meetings:

August 12: talks from Tim Barklow on $e\gamma \rightarrow eH$ and on the new CEPS paper

September 16: talks from Matt Basso on $H \rightarrow ss$ and from Yu Kato on $H \rightarrow 4b$

No meeting in October

November 11/12: bottom, e^+ pol, SMEFT, $t\bar{t}$ threshold (see next page):

<https://agenda.linearcollider.org/event/9351/>

Dec. 16, Jan. 13, Feb. 10, Mar. 10, Apr. 14

- Snowmass is restarting (EF from July);

<https://indico.fnal.gov/event/49756/>

EF workshop Aug. 30 - Sep.3

Snowmass Day (all frontiers) Sep. 24

<https://indico.fnal.gov/event/50538/>

Software & Computing Group

Software tutorials <https://agenda.linearcollider.org/category/273/>

- July 21, Introduction to iLCSoft: <https://agenda.linearcollider.org/event/9272/>
- August 18, LCFIPlus: <https://agenda.linearcollider.org/event/9318/>
- October 13, SGV fast simulation: <https://agenda.linearcollider.org/event/9394/>
- ***No plan yet for the next tutorial***

IDT-WG3-Phys Open Meeting

 11 Nov 2021, 23:00 → 12 Nov 2021, 01:00 Europe/Zurich

Description Topic: IDT-WG3-Phys Open Meeting

Join Zoom Meeting

<https://desy.zoom.us/j/84806732791>

Meeting ID: 848 0673 2791

Passcode: 314159

THURSDAY, 11 NOVEMBER



23:00 → 23:30 **Bottom-production and bottom-fragmentation at the ILC**

 30m

Speaker: Terry Generet (RWTH Aachen)

23:30 → 00:00 **Interplay of beam polarisation and systematic uncertainties in electroweak precision measurements at future e⁺e⁻ colliders**

 30m

Speaker: Jenny List (Deutsches Elektronen-Synchrotron (DE))

FRIDAY, 12 NOVEMBER



00:00 → 00:30 **Is SMEFT Enough?**

 30m

Speaker: Tim Cohen (University of Oregon)

00:30 → 01:00 **t \bar{t} bar threshold at e⁺ e⁻ colliders with the QQbar_Threshold code**

 30m

Speaker: Yuichiro Kiyo (Juntendo University)

ILD Physics WG Activities

***- Joint Effort with Software WG
and IDT WG3 -***

Today (November 10)

→ ***Search of Higgs exotic decays at the ILC by Yu Kato***

Proceedings of PANIC 2021


Draft available from <https://agenda.linearcollider.org/event/9470/>

12:00 → 12:30 New physics searches with the ILD detector at the ILC

light-weight review by Alberto

Speaker: Mikael Berggren (Deutsches Elektronen-Synchrotron (DESY))

 berggren-panic-zoo...


 slides

12:30 → 13:00 A combined fit to the Higgs Branching Ratios at ILD

light-weight review by Ivanka

Speakers: Jonas Kunath (LLR/CNRS), Jonas Kunath

 poster


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13:00 → 13:30 Prospects for the measurement of the b-quark mass at the ILC

light-weight review by Daniel

Speaker: Seidal Tairafune (Tohoku University)

 poster

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13:30 → 14:00 Charged Hadron Identification with dE/dx and Time-of-Flight at Future Higgs Factories

light-weight review by Kiyotomo

Speaker: Ulrich Einhaus (DESY)

 poster


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14:00 → 14:30 Kinematic fitting for ParticleFlow Detectors at Future Higgs Factories

light-weight review by Kiyotomo

Speakers: Yasser Radkhorrani (DESY), Yasser Radkhorrani (Institute for Research in Fundamental Sciences (IR))

 PANIC21_PROC_39...

 poster

14:30 → 15:00 Dark matter searches with mono-photon signature at future e+e- colliders

light-weight review by Mikael

Speaker: Aleksander Filip Zarniecki (University of Warsaw)

 poster

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**Submission deadline:
Nov. 15, 2021**

**Take a look and
send comments
to authors (and
PSB)**

Proposed S&A meeting schedule

Nov. 10: Filip

Nov. 24: KF

Dec. 7: General ILD phone meeting

Dec. 8: Daniel

S&A meeting usually every two weeks on Wednesday at 14:00 CERN time

Schedule also on

<https://confluence.desy.de/display/ILD/ILD+Physics+Working+group>

Physics conveners' meeting every two weeks on Wednesday at 13:00 CERN time.

Conveners' ML:

ild-physics-conveners@desy.de

Use this mailing list to send your talk request.

Stay safe!