

PSB report
2021.07.06
K. Kawagoe

- Conference talks
- Topical papers in progress
- AOB

New PSB membership

- **May 2021 ~ (after establishing new ET)**
 - Ties Behnke (ex-officio, Spokesperson)
 - Mikael Berggren
 - Ivanka Bozovic
 - Daniel Jeans (ex-officio, IA chair)
 - Kiyotomo Kawagoe (chair)
 - Alberto Ruiz
 - Monthly PSB meeting
- **Note: IDT-WG3 has also its speakers' bureau (since March 2021)**
 - Members: Ivanka Bozovic, Alain Bellerive, KK (all from ILD)
 - Additional member from SiD ?



ILCX workshop

- **ILC Workshop on Potential Experiments (ILCX2021)**

- October 26-29, 2021, Tsukuba, Japan
- <https://agenda.linearcollider.org/event/9211/overview>
- It was decided to hold the workshop “hybrid/online”.
- Registration will start soon.

ILCX Workshop on Potential Experiments (ILCX2021)

26-29 October 2021
Venue to be decided: Epochal Tsukuba International Congress Center (in-person meeting) or KEK Tsukuba Campus (hybrid meeting)
Asia/Tokyo timezone

The ILCX2021 website has opened. (24 May, 2021)


- Overview
- ILCX2021 Local Organizing Committee**
- ✉ ilcx2021@ml.post.kek.jp


The ILC International Development Team (IDT) will hold the ILC Workshop on Potential Experiments (ILCX) from October 26 to 29, 2021.

With the growing anticipation that the preparatory laboratory (Pre-lab) will be launched in the near future, we would like to expand discussions about all the possible experimental opportunities at the ILC laboratory. The workshop will address all the aspects of the collider program at the Interaction Point (IP), including, in addition to the established concepts, ideas for new detector technologies or concepts, detector performance and physics reach, software and computing, and theoretical developments. In addition, we will discuss possible beam dump experiments, forward detectors near the IP, off-axis far detectors, experiments with extracted beams for particle physics and other areas of science, including e.g. nuclear physics, condensed matter physics. Some of these ideas will require additional infrastructure and civil engineering, and therefore need to be incorporated into the ILC site planning during the four years of the Pre-lab.

The workshop organizing committee is the **Executive Board of IDT**, and the program committee is the Steering Group of **Working Group 3 (Physics and Detector)**. Given the uncertainties with the COVID-19 situation, three possible styles are being prepared in parallel: (1) in-person meeting in Tsukuba, Japan, (2) hybrid meeting on the KEK site, and (3) fully online meeting. Decision between (1) vs (2,3) will come by the end of June. In the case of in-person meeting, a visit to ILC-related sites at KEK is being arranged on Oct 25, while an excursion to the candidate ILC site in Tohoku is being planned after the workshop.

ILCX2021 is hosted by IDT, KEK and JAHEP ILC Steering Panel.

 **Starts** 26 Oct 2021, 09:00
Ends 29 Oct 2021, 17:00
Asia/Tokyo

 Venue to be decided: Epochal Tsukuba International Congress Center (in-person meeting) or KEK Tsukuba Campus (hybrid meeting)
Tsukuba Science City, JAPAN

ILD's contributions to EPS-HEP 2021

1. **Talk:** “New physics searches at ILC”, speaker: Mikael Berggren
 2. **Talk:** “A combined fit to the Higgs Branching Ratios at ILD”, speaker: Jonas Kunath
 3. **Poster:** “Heavy Neutrinos at Future Linear e+e- Colliders”, (ILC+CLIC), presenter: Krzysztof Mekala
 4. **Poster:** “Charged Hadron Identification with dE/dx and Time-of-Flight at Future Higgs Factories”, presenter: Ulrich Einhaus
 5. **Poster:** “Kinematic fitting for ParticleFlow Detectors at Future Higgs Factories”, presenter: Yasser Radkhorrami
6. **Rejected:** “Prospects for the measurement of the b-quark mass at the ILC”, by Adrian et al.
 7. **Rejected:** Takahiro Mizuno, “Jet energy calibration using e+e- \rightarrow gammaZ process at the ILC”, by Takahiro Mizuno
 8. **Rejected:** “Dark matter searches with mono-photon signature at future e+e- colliders” (ILC+CLIC), by Filip et al.

Practice talks will be arranged before EPS-HEP.
An indico page for slides/posters circulation is prepared.
<https://agenda.linearcollider.org/event/9298/>

Talks/posters of IDT-WG3 (reported by Keisuke at the last Wednesday SW/ANA meeting)

Speakers for EPS-HEP

EPS-HEP abstracts EPS-HEP, July 26, <https://www.eps-hep2021.eu/> (5 physics + 1 detector talk) submitted

Accepted:

Parallel (4)

Talks

1. "New ideas on detector technology for the ILC experiments" with ID #464 has been accepted in track "Detector R&D and Data Handling"
<https://indico.desy.de/event/28202/abstracts/10856/> **M. Titov (CEA/Saclay)**
2. "Top quark physics at ILC" with ID #467 has been accepted in track "Top and Electroweak Physics" [https://indico.desy.de/event/28202/abstracts/10860/RomanPoeschl\(LALOrsay\),](https://indico.desy.de/event/28202/abstracts/10860/RomanPoeschl(LALOrsay),)
3. "Higgs invisible and rare decays at ILC" with ID #466 has been accepted in track "Higgs physics"
Cristopher Thomas Potter (University of Oregon)
4. "ILC Higgs physics potential" with ID #465 has been accepted in track "Higgs physics"
<https://indico.desy.de/event/28202/abstracts/10857/> **Shin-ichi Kawada (KEK) Poster (2)**

Posters

1. "CP violation in the Higgs sector at ILC" with ID #469 has been accepted in track "Flavour Physics and CP Violation" <https://indico.desy.de/event/28202/abstracts/10862> **T. Jovin (VINCA)**
2. Probing dark matter with ILC, has been accepted in track "Dark matter"
<https://indico.desy.de/event/28202/contributions/> **Wojciech Kotlarski (TU Dresden)**
[IDT WG3 Speakers Bureau Report, June 22 2021](#) 1

Visible ILD contributions through IDT-WG3

Other upcoming conferences

- **PANIC 2021 June 20 (September 5-10, online)**
 - Some of the ILD's EPS-HEP abstracts were submitted individually
- **Lomonosov conference in Moskov (August 19-25)**
 - Jenny is invited for ILC project
 - Daniel will talk on the Higgs CP study

Plan to submit a few abstracts to:

- **Higgs coupling 2021 (October 18-22, Stony brook, hybrid ?)**
 - Abstract deadline July 15
- **Dark matter 2021 (September 13-16, “a virtual format”)**
 - Abstract deadline July 31
- **Lepton-Photon 2021 (Manchester)**
 - <https://www.leptonphoton2021.org>
 - **Postponed to January 10-14, 2022**, no further information on the webpage
- **ICHEP 2022 (Bologna)**
 - <https://www.ichep2022.it>
 - July 6-13. Only one picture on the webpage

Topical papers in progress

1. **“Full simulation study of the process $e+e\rightarrow bb$ at $\sqrt{s} = 250$ GeV at the ILC”**,
 - Authors: Roman Poeschl, Sviatoslav Bilokin *et al.*
 - Reviewers: Keisuke Fujii and Mikael Berggren
2. **“Search for low mass scalar particles ”**
 - Authors: Yan Wang *et al.*
 - Reviewers: Junping Tian and KK

No visible progress reported recently. Hope to have new drafts for reviewers (and then for circulation in ILD).

Topical papers in progress (cont'd)

3. “Development of a Vertex Finding Algorithm using Recurrent Neural Network”

- Authors: K. Goto, T. Suehara *et al.*
- An ILD topical paper on software
- Reviewers: Daniel and Mareike
- First draft for the reviewers in March. Feedbacks sent to the authors
- Second draft on June 4, taking account of reviewers' feedbacks
- **Waiting for reviewers' feedbacks (one already sent)**

4. “Measurement of $\sigma(e^+e^- \rightarrow HZ) \times \text{Br}(H \rightarrow ZZ^*)$ at the 250 GeV ILC”

- Authors: E. Antonov and A. Drustkoy
- Reviewers: Ivanka + Filip
- A draft for reviewers was ready on April 16
- Reviewers sent their first feedbacks in early May. The main issue is the background.
- Second draft on June 2.
- **Very active discussion between authors and reviewers is ongoing.**
 - **Converging to a draft to be circulated in ILD near future**

Summary

- Recent activities are reported.
 - Visibility in conferences
 - A few new topical papers to come
- We would like to encourage ILD people
 - to publish results as topical papers or notes
 - Categories: PHYS, SOFT, TECH
 - to present results at conferences
 - to join internal reviews and practice talks

Thank you for your cooperation !!

backup

Roles and activities

- <https://confluence.desy.de/display/ILD/ILD+Publication+and+Speakers+Bureau>
- **Mandate and rules**
 - “Communication of results and progress within the ILD group is largely done through publications and conference contributions. The ILD publication and speakers’ bureau (PSB) coordinates and oversees this important aspect within ILD.”
 - Approved publication rules are given on the confluence page.
 - In general, analysis based on ILD full simulation data should be internally reviewed in ILD.
- **Activities**
 - **ILD Publications: coordination of internal review processes**
 - Papers
 - Topical papers
 - ILD notes (public and internal)
 - Conference proceedings
 - **Conference presentations**
 - Submission of ILD abstracts to conferences
 - Finding speakers/presenters of accepted abstracts
 - Circulation of draft slides / posters
 - Rehearsal talks
- **Email: ild-psb@desy.de**