

PSB report

2022 October 04

@DESY+online

K. Kawagoe (Kyushu-U)

- Roles and activities
- Membership
- Conference talks
- Topical papers
- ILD notes

My last report was at the online ILD meeting in June 2021.

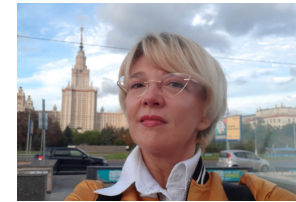
Roles and activities

- <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 major conferences
 - Finding speakers/presenters of accepted abstracts
 - Circulation of draft slides / posters
 - Rehearsal talks
- **Contact: ild-psb@desy.de**

PSB membership

- **May 2021 ~ now**

- Ties Behnke (ex-officio, Spokesperson)
- Mikael Berggren
- Ivanka Bozovic
- Daniel Jeans (ex-officio, IA chair)
- Kiyotomo Kawagoe (chair)
- Alberto Ruiz
- Monthly PSB meeting & e-mail exchanges



- **Note: IDT-WG3 has its own speakers' bureau**

- Members: Ivanka Bozovic, KK, Carsten Hensel (new, replacing Alain Bellerive)
- The two bureaus should work coherently

(LC) workshops

- **ILC Workshop on Potential Experiments (ILCX2021)**
 - October 26-29, 2021, fully online (hosted by KEK)
 - <https://agenda.linearcollider.org/event/9211/overview>
 - 607 registered participants
 - A plenary talk on the ILD concept by A. Irlles
 - 14 parallel talks on physics and detectors
- **ECFA e^+e^- Higgs/EW/top factories workshop**
 - October 5-7, DESY in Hamburg
 - <https://indico.desy.de/event/33640/>
 - 12 ILD-related parallel talks, individually submitted
 - 8 posters (7 of them were submitted by PSB to make “ILD corner” at the poster session (Thursday 16:30))
 - Drafts are available: <https://agenda.linearcollider.org/event/9818/>
- **No LC workshop in 2022**
- **LCWS2023 in North America**
 - May 15-19, 2023, at SLAC

Other conferences

- **EPS-HEP 2021 (July 26-30, online, hosted by DESY)**
 - <https://www.eps-hep2021.eu>
 - **2 talks and 3 posters**
 - All contributions to the proceedings were submitted
- **PANIC 2021 (September 5-10, Lisbon → online)**
 - <https://indico.lip.pt/event/592/page/49-overview>
 - **1 talk and 5 posters**
 - All contributions to the proceedings were submitted
- **Lepton-Photon 2021 (January 10-14, **2022**, Manchester)**
 - <https://www.leptonphoton2021.org>
 - **4 posters**
 - Written proceedings are not mandatory (slides/posters may suffice)
 - All but one contributions to the proceedings were submitted
- **ICHEP 2022 (July 6-13, **2022**, Bologna)**
 - <https://www.ichep2022.it>
 - **5 talks**
 - Proceedings: Deadline October 31
 - **Review of draft proceedings started.**
- **Contributions to Snowmass 2021**
 - **Seattle community summer study July 17-26, **2022****
 - <https://indico.fnal.gov/event/22303/>
 - **6 contributions were reviewed and submitted (one more contribution recently)**

ILD publications in 2021-2022

Topical Papers

1. **“Measurement of $\sigma(e^+e^- \rightarrow HZ) \times \text{Br}(H \rightarrow ZZ^*)$ at the 250 GeV ILC”,** ILD-PHYS-2021-001
 - Authors: **E. Antonov, A. Drutskoy**
 - Reviewers: I. Bozovic, A. F. Zarnecki
 - [Phys. Rev. D 104 \(2021\) 093007](#) / [arxiv:2108.08867](#)
2. **“Development of a Vertex Finding Algorithm using Recurrent Neural Network”,** ILD-SOFT-2021-001
 - Authors: **K. Goto, T. Taikan, *et al.***
 - Reviewers: D. Jeans, M. Meyer
 - [arxiv:2101.11906](#) Submitted to NIM A. Iterations between authors and referees

An ILD note

1. **“Prospects for the measurement of the b-quark mass at the ILC”,** ILD-PHYS-PUB-2021-001
 - Authors: **J. Fuster, A. Irles, G. Rodrigo, S. Tairafune, M. Vos, H. Yamamoto, R. Yonamine**
 - Reviewers: I. Bozovic
 - An ILD physics note as a part of a paper with theorists

Topical papers in progress

1. **“Full simulation study of the process $e+e\rightarrow b\bar{b}$ at $\sqrt{s} = 250$ GeV at the ILC”** (since 2017)
 - Authors: R. Poeschl, S. Bilokin *et al.*
 - Reviewers: K. Fujii and M. Berggren
 - Hope to have a draft for publication in this year
2. **“Search for low mass scalar particles”** (since 2018)
 - Authors: Y. Wang *et al.*
 - Reviewers: J. Tian and KK
 - No update since 2021 March. little hope of publication ?
3. **“Sensitivity to anomalous VVH couplings at the ILC”** (since 2017)
 - Authors: J. Tian, T. Ogawa
 - Reviewers: J. List, I. Bozobic
 - Effort for publication of this work was once suspended, but it has been re-activated. Although Tomohisa is gone to a company, Junping is now working to prepare a draft for publication by the end of year.
4. **“Strange quark as a probe for new physics in the Higgs sector”** (since 2022)
 - Authors: M. Basso, V. Cairo
 - Reviewers: A. Ruiz, U. Einhaus
 - Aiming for a Snowmass contribution first (done), and then for journal publication
 - Additional work needed for a journal paper

Topical papers being expected

1. **“Measurement of $H \rightarrow Z\gamma$ decay at the 250 GeV ILC ”**
 - Authors: Evgeny Antonov, Alexey Drutskoy
 - First paper draft to be ready very soon
 - Reviewers are being selected
2. **“Hadron production in photon-photon processes at the at the ILC”**
 - Authors: Swathi Sasikumar
 - Draft for reviewers by the end of this year ?
 - Reviewers to be selected once the first draft is (nearly) ready
3. **“Stau searches and measurements with the ILD concept at the International Linear Collider”**
 - Authors: Maria Teresa Nunez Pardo Vera, M. Berggren, J. List
 - Draft for reviewers by the end of this year ?
 - Reviewers to be selected once the first draft is (nearly) ready

Summary

- Remind the role of ILD PSB
- Recent activities are reported.
- 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 !!