

Report from Physics Coordinators

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on behalf of the Physics WG



ILD Software and Analysis meeting
June 5, 2024

Meetings

LCWS'2024

Tokyo, Japan, **July 8-11(12), 2024**

<https://agenda.linearcollider.org/event/10134/>

Workshop schedule:

- Monday and Thursday mainly plenary
- Tuesday and Wednesday mainly parallel (agenda being finalized)
- poster session on Monday
- **ILD meeting on Friday afternoon**
ITN, SiD and C³ meetings in the morning

All new results should be presented at S&A meeting before LCWS

Slides should be made available for review on dedicated indico page:

<https://agenda.linearcollider.org/event/10372/>

Meetings

ICHEP'2024

Prague, July 18-24, 2024

<https://ic hep2024.org/>

<https://indico.cern.ch/event/1291157/>

8 talks (1 general + 7 individual) and 4 posters accepted from ILD

also 3 general ILC physics submitted by ILC IDT

⇒ very good coverage (again!)

All new results should be presented at S&A meeting before LCWS (!)

There is no gap between LCWS and ICHEP !!!

Rehearsals and/or slide reviews will be planned by PSB...

Meetings

Corfu'2024 Workshop on the Standard Model and Beyond

Corfu, August 25 - September 4, 2024

<http://physics.ntua.gr/corfu2024/sm.html>

Abstract submission is opened...

3rd ECFA study workshop 2024

Paris, France, **October 9-11, 2024**

<https://indico.in2p3.fr/event/32629/>

Similar to the previous two workshop (DESY'2022 and Paestum'2023)

Focused on the results which are to be included in the final report.

We need to contribute as much as possible!

Abstracts for oral contributions should be submitted before **July 15th!!!**

Do not wait till the last moment! You need to have an IN2P3 indico account to submit.



Meetings

IDT-WG3-Phys Open Meeting

Next meeting scheduled for June 27, at 4PM CERN time

<https://agenda.linearcollider.org/event/10362/>

No details yet...

Detector Concept Status and Planning

Second mini-workshop on LC Detectors: June 28, at 3PM CERN time

<https://agenda.linearcollider.org/event/10370/>

Presentation of CLICdet and ...



Software and Analysis meeting schedule

(Usually every two weeks) on Wednesday at 14:00 CERN time

- June 5 (today)
- June 19
- July 3
 - ICHEP rehearsals (PSB)
- July 17

Please use conveners' email list, if you want to present your results

ild-physics-conveners@desy.de

ECFA study final report timeline

after ESU schedule announced in April

- June 2024: list of topics expected to be included in the final report
focus topics are clearly there, but there are more relevant topics worth presenting
- October 2024: deadline for new results
should be presented, together with draft write-ups at the Paris workshop
one of the reasons for the meeting today: to review what results can be expected
- December 2024: finalized text of the report
released for the comments from the community
- March 2025: submission as input to the European Strategy Update

- 1 **HtoSS** – $e^+e^- \rightarrow Zh: h \rightarrow ss$ ($\sqrt{s} = 240/250$ GeV)
- 2 **ZHang** – Zh angular distributions and CP studies
- 3 **Hself** – Determination of the Higgs self-coupling
- 4 **Wmass** – Mass and width of the W boson ...
- 5 **WWdiff** – Full studies of WW and $e\nu W$
- 6 **TTthres** – Top threshold: Detector-level simulation study of $e^+e^- \rightarrow t\bar{t}$...
- 7 **LUMI** – Precision of the luminosity measurement
- 8 **EXscalar** – New exotic scalars
- 9 **LLPs** – Long-lived particles
- 10 **EXtt** – Exotic top decays
- 11 **CKMWW** – CKM matrix elements from W decays
- 12 **BKtautau** – $B^0 \rightarrow K^{0*}\tau^+\tau^-$
- 13 **TwoF** – EW precision: 2-fermion final states ($\sqrt{s} = M_Z$ and beyond)
- 14 **BCfrag** and **Gsplit** – Heavy quark fragmentation and hadronisation, gluon splitting...