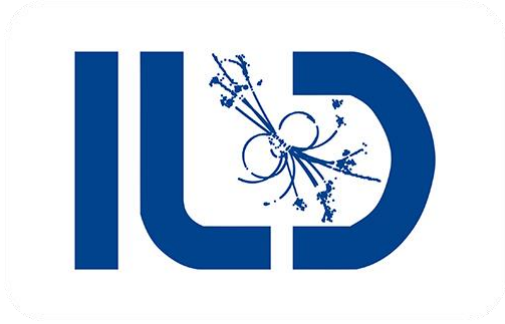




PSB REPORT

A detector for the next CERN flagship project: ILD
September 14-16, CERN

2024-2026 Wrap up

Summary of ILD output in 2024-26



ILD papers	Published
2024	3
2025	3
2026	(2)

ILD talks (excluding LCWS2024)	2024	2025	2026
	32	22	10

+ (2024) 17 ECFA Higgs/top/EW study notes <https://agenda.linearcollider.org/event/10484/>

+ (2025) 13 LCWS2024 reviewed proceedings

Topical papers published

2024

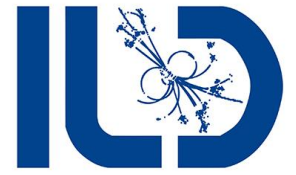
1. Probing Gauge-Higgs Unification models at the ILC, with AFBb and AFBc above the Z-pole
 - Authors: A. Irlles, R. Poeschl, *et al.*
 - ILC-PHYS-2024-001
 - Also published as [arXiv:2306.11413](https://arxiv.org/abs/2306.11413)
 - *Eur. Phys. J. C* 84, 537 (2024) <https://doi.org/10.1140/epjc/s10052-024-12918-z>
2. Probing CPV mixing in the Higgs sector in VBF at 1 TeV ILC
 - Authors: N. Vukasinovic, I. Bozovic, *et al.*
 - ILC-PHYS-2024-002
 - Also published as [arXiv:2405.05820](https://arxiv.org/abs/2405.05820)
 - *Phys. Rev. D* 110, 032011 (2024), <https://doi.org/10.1103/PhysRevD.110.032011>
3. CaloFlux: A Tool to Estimate Fluxes in Calorimeters at Colliders
 - Authors: V. Boudry and K. Hassouna
 - Accepted as a technical report in JINST, <https://iopscience.iop.org/article/10.1088/1748-0221/19/10/T10009>

Topical papers published

2025

1. Exploring Hidden Sectors with Two-Particle Angular Correlations at Future e^+e^- Colliders
 - Authors: E. Musumeci, A. Irles, *et al.*
 - *The paper was not reviewed by the PSB*
 - Physics 2025, 7(3), 30; <https://doi.org/10.3390/physics7030030>
2. Metrology requirements for the integrated luminosity measurement using small angle Bhabha scattering at ILC
 - Authors: I. Smiljanic, I. Bozovic, *et al.*
 - [ILD-PHYS-2024-003](#)
 - Also published as arXiv:2407.03024
 - Progress of Theoretical and Experimental Physics, ptaf015 (2025)
3. Searching for LLP at the ILD
 - Authors: J. Klamka and F. Zarnecki
 - [ILD-PHYS-2024-002](#)
 - Also published as arXiv:2409.13492
 - JHEP 02 (2025) 112

Topical papers submitted



2026

1. Comparative study and optimization of SDHCAL hadronic energy reconstruction methods

- Authors: T. Pasquier, G. Grenier, *et al.*
- Also published as arXiv:2607.15023 [physics.ins-det]
- Under review in JINST
- ILD-TECH-2026-001

2. The SUSY reach of Higgs Factories in the most challenging scenario: scalar τ -leptons with lowest cross-section and small mass differences

- Authors: M.T. Núñez Pardo de Vera, M. Berggren, *et al.*
- Also published as arXiv:2604.06103 [hep-ph]
- Under review in Eur. Phys. J. C
- ILD-PHYS-2026-001

2024-2026 in the PSB eyes

- ILD Collaboration (authors) demonstrated tremendous effort, endurance and enthusiasm in (already very long) times of uncertainty of LC (or any other major HEP project)
- No major HEP conference took place without ILD participation (ICHEP2024 – 10 accepted abstracts, EPS-HEP2025 - 7 talks + 1 poster, ICHEP2026 – 4 physics talks + 1 on ILD detector)
- Significant contribution to the EU strategy process - 17 ECFA Higgs/top/EW study notes
- LCWS meetings traditionally get the Collaboration's attention with over 10 talks

The biggest 'Thank you' from the PSB goes to the authors of 8 published papers and conference speakers and volunteers who gave 64 talks in the course of two and half years

Also, very special 'Thank you' from the us goes to Ties who led ILD effort over 2 decades long 'dry season' with wisdom and moderation, keeping ILD international, visible and pleasant community to be a part of