



WG3 update ILC-Europe, 15 July 2021

Aidan Robson

Chair: Hitoshi Murayama (Berkeley/Tokyo)

Deputies: Jenny List (DESY) and Claude Vallée (Marseille)

Coordinator and Deputy coordinator(s)

Kiyotomo Kawagoe (Kyushu), Alain Bellerive (Carleton),
Ivanka Božović Jelisavčić (Belgrade)

Steering Group

Subgroup conveners, Coordinator and Deputy Coordinator(s)

Speaker's bureau

Andy White (UT Arlington), Ties Behnke (DESY), Yuanning Gao (Peking), Frank Simon (MPP), Jim Brau (Oregon), Keisuke Fujii (KEK), Phil Burrows (Oxford), Francesco Forti (INFN),
Filip Zarnecki (Warsaw), Patty McBride (Fermilab), Mihoko Nojiri (KEK), [CERN member](#), Timothy Nelson (SLAC), Kajari Mazumdar, Phillip Urquijo (Melbourne), Dmitri Denisov (Brookhaven)

Interface with machine

Coordinate the interactions between the accelerator and facility infrastructure planning and the needs of the experiments

Karsten Buesser (DESY), Yasuhiro Sugimoto (KEK), Roman Poeschl (Orsay), [US](#)

Detector and technology R&D

Provide a forum for discussion and coordination of the detector and technology R&D for the future experimental programme

Marcel Vos (Valencia), Katja Krueger (DESY)
Petra Merkel (Fermilab), David Miller (Chicago)

Software and computing

Promote and provide coordination of the software development and computing planning

Frank Gaede (DESY), Jan Strube (PNNL)
Daniel Jeans (KEK)

Physics potential and opportunity

Encourage and develop ideas for exploiting the physics potential of the ILC collider and by use of the beams available for more specialised experiments

Michael Peskin (SLAC), Junping Tian (Tokyo)
Aidan Robson (Glasgow)

Physics Potential: open scientific meetings



- ◆ Regular monthly open scientific meetings, each organised by 2–3 Topical Groups
- frequency will increase gradually as more people join. Schedule:

- **Thursday 17th June**, 3pm CEST
- **Thursday 15th July**, 3pm CEST

<https://agenda.linearcollider.org/event/9254/>

Topics from Top/Heavy Flavour/QCD, Modelling & Precision Theory, Higgs

Theory Advances for Jet Substructure at Future Lepton Colliders

Speaker: Andrew Larkoski

Modern techniques for jet reconstruction

Speaker: Ben Nachman

Analytical ISR photon calculation

Speaker: Kay Schönwald

Opportunities for the ILC in the Light of HL-LHC Results

Speaker: Sven Heinemeyer

TODAY !

- **Thursday 12th August**, 3pm CEST
- **Thursday 16th September**, 3pm CEST

Other WG3 Physics/Software meetings



- ◆ Modelling and Precision Theory Topical Group held initial dedicated meeting:

- Thursday 10th June

<https://agenda.linearcollider.org/event/9274/>

- ◆ Fixed Target / Dark Sector Task Force meeting ~monthly:

- Last meeting – Wednesday 16th June

<https://agenda.linearcollider.org/event/9273/>

- ◆ Software & Computing group has started regular tutorials:

First tutorial took place Wednesday 23rd June

- Delphes and miniDST (Filip Zarnecki and Jenny List) – recording available

<https://agenda.linearcollider.org/event/9264/>

- > well-attended (~40) with new faces

Next tutorial **Wednesday 21st July, 3.30pm CEST**

- Introduction to ILCSoft (Thomas Madlener)

<https://agenda.linearcollider.org/event/9272/>

NEXT WEEK !

WG3 Physics/Software meetings



- ◆ All listed on indico (linked from main WG3 Physics webpage)
<https://agenda.linearcollider.org/category/266/>
- ◆ Sign-up instructions for mailing lists, overall WG3 and topical lists:
<https://agenda.linearcollider.org/event/9154/>

Meeting calendar available:

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

July 2021

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MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15 15:00 IDT-WG3-Phys Open Meeting	16	17	18
19	20	21 15:30 tutorial: Introduction to iLCSoft	22	23	24	25
26	27	28	29	30	31	

- ◆ Kickoff meeting held on 5th July: <https://agenda.linearcollider.org/event/9310/>
- ◆ Next meeting planned for 23rd July <https://agenda.linearcollider.org/category/270/>

MDI-Physics – Short term goals



- Two Kickoff-Meetings to settle the scene and to get an impression of the state-of-the art, an overview on relevant literature and on clear open issues in form of flash talks
 - ... and of course to gather relevant experts
- Topical meetings over autumn/winter 2021/22
 - ~Every three weeks starting beginning of September
 - Deepen topics sketched during Kickoff-Meetings
 - Dedicated talks and discussions
 - Proposal of Calendar at Kickoff-Meeting II on 23/7/21
- Intermediate report at ILCX Workshop (even if not all topical meetings will have been held)
- ~February 2022
 - Decision of how to move on depending on prospects for Pre-lab
 - (Short) written summary of topical meetings
 - Definition of working groups
 - i.e. Moving from “Forum Mode” to “Working Group Mode”
 - Understanding of how necessary work can/will be funded (and recognised!!!)

Speakers Bureau



- ◆ Abstract submissions being coordinated
- ◆ → 4 parallel talks and 2 posters accepted for EPS-HEP
- ◆ Submissions being made for Higgs2021 (deadline today)
- ◆ Invitation received to submit proposals to SUSY2021

Speakers Bureau happy to be contacted:

email idt-wg3-sb@ml.post.kek.jp

- ◆ “ILC X” workshop planned for Tue 26th October – Fri 29th October in Japan
- ◆ Fully in-person option now ruled out;
Plan A is hybrid meeting (Plan B would be fully online)
- ◆ Meeting will be afternoon & evening Japan time = early morning & afternoon CEST
and hosted at KEK (with shuttle buses to hotels for the hybrid option)
- ◆ Provisionally 4x 2-hour slots each day; 10 slots for parallel sessions, and 6 plenary sessions
- ◆ Morning can be used for satellite meetings, and site tour for those in Japan
- ◆ Parallel sessions likely to be modelled
on WG3 subgroups and task forces
- ◆ Original plan was to encourage
development of Eols so would still
like particular focus on
 - new concepts,
 - interests from other fields
(nuclear, condensed matter etc),
 - new technologies and ideas for
collider detectors

→ more information soon

