

Meeting FC-CPPM, 30 Mars 2021
Claude Vallée

DERNIERES NOUVELLES DE L'ILC

LCWS2021
ILC International Development Team
Next steps

LCWS 2021 / 15-18 March 2021

See <https://indico.cern.ch/event/995633/>

Close to 1000 registrants

Political progress:

Bottom-up (KEK→MEXT) and top-down (PM Cabinet/Diet → Ministers) processes in Japan

Critical step: Prelab budget request to MEXT early summer

Confirmed support of US new administration to the project

Project design:

“Technical Preparation Document” imminent release for accelerator Prelab program

Interesting set of new ideas from HL-LHC and R&D communities for detector improvements

ILC INTERNATIONAL DEVELOPMENT TEAM

Now fully operational, new ILC public web site released: <https://linearcollider.org/>

ICFA

ILC-IDT

Executive Board

Andrew Lankford (UC Irvine): Americas Liaison

Shinichiro Michizono (KEK): Working group 2 Chair

Hitoshi Murayama (UC Berkeley/U. Tokyo): Working group 3 Chair

Tatsuya Nakada (EPFL): Executive Board Chair and Working group 1 Chair

Yasuhiro Okada (KEK): KEK Liaison

Steinar Stapnes (CERN): Europe Liaison

Geoffrey Taylor (U. Melbourne): Asia-Pacific Liaison

Working group 1
Pre-lab set-up

Working group 2
Accelerator

Working group 3
Physics & Detectors

Scientific secretary: Tomohiko Tanabe (KEK)

Communication team led by Rika Takahashi (KEK)

Unlike LCB/LCC, ILC-IDT is focused on the ILC.

KEK provides administrative, logistic and some financial support.

IDT-WG1: PRELAB SETUP

Members: EB + representatives of worldwide large Labs:

Paul Collier (CERN)
Bruce Dunham (SLAC)
Brian Foster (Oxford)
Juan Fuster (Valencia)
Stuart Henderson (JLAB)
Reiner Kruecken (TRIUMF)
Joseph D. Lykken (FNAL)
Maksym Titov (CEA)
Satoru Yamashita (Tokyo)

IDT-WG2: ACCELERATOR

IDT EB

IDT WG2
Shin Michizono (Chair)
Benno List (Deputy)

Smooth transition to the ILC Pre-Lab

ML&SRF

Yasuchika Yamamoto	KEK
Sergey Belomestnykh	FNAL
Nuria Catalan	CERN
Enrico Cenni	CEA
Dimitri Delikaris	CERN
Luis Garcia Tabares	CIEMAT
Rongli Geng	ORNL
Hitoshi Hayano	KEK
Bob Laxdal	Triumf
Matthias Liepe	Cornell
Peter McIntosh	STFC
Laura Monaco	INFN Milano
Olivier Napoly	CEA
Sam Posen	FNAL
Robert Rimmer	JLAB
Marc C. Ross	SLAC
Kensei Umemori	KEK
Hans Weise	DESY
Akira Yamamoto	KEK

DR/BDS/Dump

Toshiyuki Okugi	KEK
Karsten Buesser	DESY
Philip Burrows	U. Oxford
Angeles Faus-Golfe	LAL
Andrea Latina	CERN
Kiyoshi Kubo	KEK
Jenny List	DESY
Thomas Markiewicz	SLAC
Brett Parker	BNL
Ivan Podadera	CIEMAT
David L. Rubin	Cornell
Nikolay Solyak	FNAL
Nobuhiro Terunuma	KEK
Glen White	SLAC
Kaoru Yokoya	KEK
Mikhail Zobov	INFN LNF

Dump

Nobuhiro Terunuma	KEK
Toshiyuki Okugi	KEK

Sources

Kaoru Yokoya	KEK
Jim Clarke	STFC
Steffen Doebert	CERN
Joe Games	JLAB
Hitoshi Hayano	KEK
Masao Kuriki	U. Hiroshima
Benno List	DESY
Jenny List	DESY
Gudrid Moortgat-Pick	U. Hamburg
Sabine Riemann	DESY
Peter Sievers	CERN -retired

Civil engineering

Nobuhiro Terunuma	KEK
John Andrew Osborne	CERN
Tomoyuki Sanuki	U. Tohoku

CRAB

IDT-WG3: PHYSICS&DETECTORS

Chair: Hitoshi Murayama (Berkeley/Tokyo)

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

Coordinator and Deputy coordinator(s)

Steering Group

Subgroup conveners, Coordinator and Deputy Coordinator(s)

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

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 (Mumbai), 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

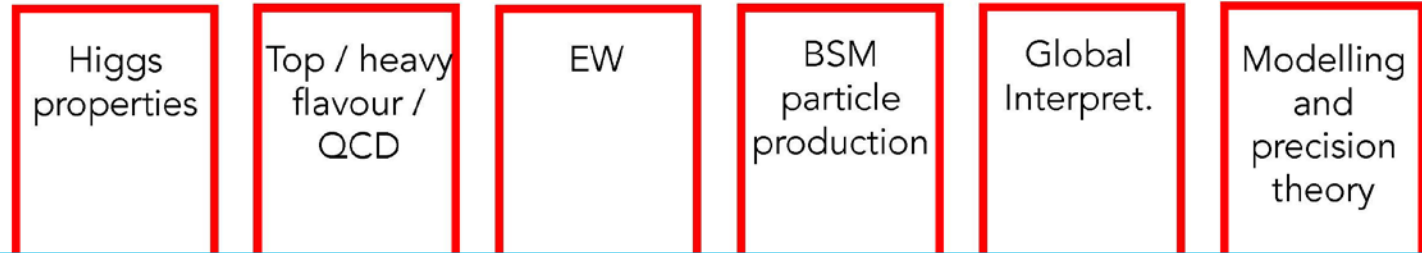
Michael Peskin (SLAC), Junping Tian (Tokyo)
Aidan Robson (Glasgow)

Participation open to all volunteers...

IDT-WG3 PHYSICS GROUPS

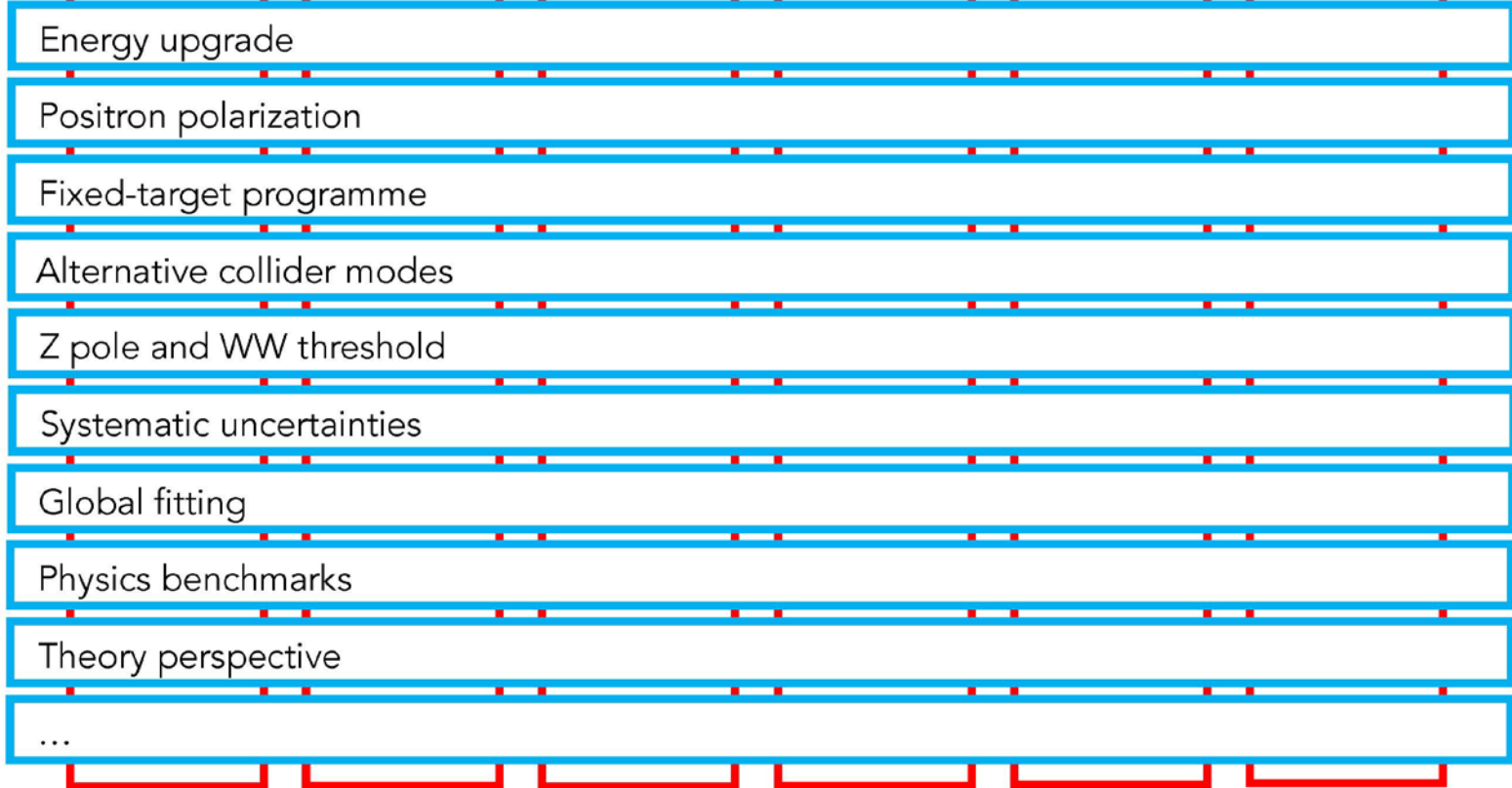
Topical Groups

-> broad scope



Task Forces
-> specific advice

Definition / discussion ongoing; may reach across WG3 groups; may include WG2;



IDT-WG3: EXCERPT OF TECHNICAL MANDATE

Technical aspects:

- Identify all machine/detector interface issues to be addressed by the Prelab to finalize the ILC design (e.g. interaction campus, experimental hall, interaction regions, operating scenario), through a forum of exchange of information between machine and detector requirements, and study their implications for the experiments design.
- Monitor the global detector R&D – in ILC detector concept groups, detector R&D collaborations, and beyond the current ILC community – and enable new efforts to introduce emerging detector technologies into the ILC experiments.
- Coordinate performance studies to assess the detector requirements of the ILC experiments as well as the relative performance of alternative detector solutions.
- Contribute to defining how the Prelab structure can best foster the detectors' final design and construction preparation in liaison with the worldwide academic bodies and industrial landscape.

IDT-WG3: TECHNICAL TASKFORCES BEING SET UP

Detector Hall and IP Campus: *(option to merge the 2 taskforces under discussion)*

- WG2: H. Hayano (CFS), N. Terunuma (CFS), T. Sanuki (Site)
- WG3-MDI: K. Buesser (IP Campus), Y. Sugimoto (DH), T. Tauchi (BDS and seismic issues), Y. Makida (detector SC magnet), *SiD & CLICdp contacted to nominate representatives*

Impact of beam delivery system on detectors design and specific physics reach

- Beam param measurements (lumi, pol, E), beam BG conditions, inner&fwd detectors design, fwd physics reach
- Contributors: WG3-MDI/D&T/Soft/Phys + WG2 + concepts
- *Task force(s) to be set up under the lead of the WG3-MDI subgroup (R. Poeschl specifically in charge)*

Detector performance studies

- Coordination of performance studies including emerging technologies and alternative detector solutions
- Contributors: WG3-D&T/Soft/Phys + concepts + R&D community
- *Task force to be set up under the lead of the WG3-D&T subgroup*

NEXT STEPS

April:

Release of the ILC Technical Preparation Document and of the Prelab interim document

October 25-29:

**“Workshop on potential experiments at ILC”
*to be organized in Japan by IDT-WG3***