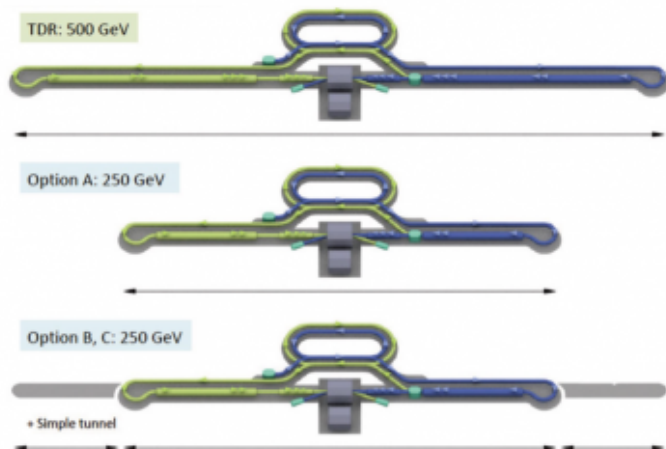


LC NEWSLINE

THE NEWSLETTER OF THE LINEAR COLLIDER COMMUNITY



DIRECTOR'S CORNER

The ILC at 250 GeV: an overview of options

by Shin Michizono

Shinichiro Michizono, Associate Director for the ILC in the Linear Collider Collaboration, takes a look at the proposed 250-GeV ILC from an accelerator expert's point of view.

AROUND THE WORLD

LINE sticker "Kawaii Particle Physics" in store soon!!

by Rika Takahashi



Sign up to the communication app LINE and get your free "Kawaii Particle Physics!"

AROUND THE WORLD

Detector experts meet in Ichinoseki

by Barbara Warmbein



The planners and builders of the future ILD detector met in Ichinoseki, close to the potential future home of their high-tech masterpiece, in February to compare notes and advance the detector design.

ANNOUNCEMENTS

by Perrine Royole-Degieux

The **2018 Asia-Europe-Pacific School of High-Energy Physics** is now open for applications (deadline 6 April 2018). It is

ANNOUNCEMENTS

The **7th Linear Collider School** will take place from 6 to 13 May 2018 at Fraunchemsee, Germany.

ANNOUNCEMENTS

ALCW 2018

The **Asian Linear Collider Workshop** will be held from 28 May to 1 June 2018 in Fukuoka, Japan. It is the next in a series of

the fourth Asia-Europe-Pacific School of High-Energy Physics, and will be held in Quy Nhon, Vietnam, from 12 to 25 September 2018. AEPSHEP is held every second year, hosted in countries in the Asia-Pacific region. The first three schools in the series were held in Fukuoka, Japan, in 2012, in Puri, India, in 2014, and near Beijing, China, in 2016.

Applications to attend the School are invited particularly from students from countries in the Asia-Pacific region and from Europe, although applications from other regions will also be considered. The programme of the school will be at a level appropriate for PhD students in experimental particle physics. It is anticipated that students working on phenomenology (if not too far from particle-physics experiment) will also be accepted. The school is open to junior post-docs (typically less than two years after completing their PhD), and also advanced MSc students provided their prior knowledge is comparable with that of the principal target audience so that they can benefit from the courses offered at the school.

Wherever possible participants are expected to obtain funding for the fee as well as their travel from their home countries. However, some sponsorship will be available for a limited number of students from countries with developing programmes in particle physics. Eligible students are therefore encouraged to apply even if they do not expect to obtain funding from their home institute to attend the School.

— *The International Organising Committee*

The school is aimed at Master and PhD students and postdoctoral researchers working in particle physics. The programme consists of lectures covering future high energy colliders (HL-LHC, LC, FCC, FCC-ee), e+e- accelerator physics, detector physics, Top/Higgs/BSM physics aspects, precision calculations, physics and philosophy, cosmology and the current LC status. Registration closes 22 April!

regional linear collider workshops held around the world, and is co-hosted by Kyushu University, KEK, ACFA/AsiaHEP and the Linear Collider Collaboration.

Early registration end: 20 April
Online registration end: 18 May
Conference start: 28 May
LCWS 2018

The next worldwide Linear Collider Workshop, LCWS 2018, will be held on the campus of the University of Texas at Arlington, from 22 to 26 October 2018. Meeting website will be available soon.

IN THE NEWS

from **BBC**

30 March 2018

Higgs factory a 'must for big physics'

"The Higgs is the first fundamental scalar that has ever been observed. And pretty much all physics beyond the Standard Model contains scalars," said Dr Lockyer. "So these scalars would mix with the Higgs – the question is how strongly. But what you're looking for is evidence of the Higgs mixing with other scalars. That would be a window into new physics."

from **Iwate Nippo**

27 March 2018

The Tohoku ILC Planning Office Master Plan released, clearly states that the ILC main campus will be in "either Ichinoseki or Oshu"

On March 26th, the Tohoku ILC Planning Office (Director: IPU President Atsuto Suzuki) released an outline of their master ILC plan, which describes the future of Tohoku and what infrastructure would be created, as well as makes clear the roles of government and the private sector.

from **Kahoku Shinpo**

21 March 2018

< I L C > 研究者「日本が主導を」文科省「国際枠組みで」 議連総会で一時応酬

ILCの実現を目指す超党派の国会議員連盟は20日、衆院議員会館で総会を開いた。研究者組織の国際将来加速器委員会が日本主導の計画推進を求める状況に文部科学省の担当者が異論を挟み、研究者が反論する場面があった。(General meeting of Diet members association for the ILC met on 20 March. There was a little struggle between scientists and the persons in charge of the Ministry of Education, Culture, Sports, Science and Technology regarding the status toward ICFA's request for Japan's leading role for the ILC)

from **Kahou Shinpo**

20 March 2018

本年度で閉校の一関市・奥玉小の6年生、卒業制作のカレンダーに「I L C」描く 思い継承

本年度で閉校する一関市奥玉小の6年生が、地元が誘致を目指している超大型加速器「国際リニアコライダー (I L C) 」を自分なりに考えて描いた卒業制作のカレンダーが完成した。(6 graders at Okutama elementary school in Ichinoseki city, Iwate prefecture created the calendar with ILC artworks as their graduation project.)

from **Iwate Nippo**

11 March 2018

Advanced science research is at a crossroads in Japan: with the national budget at a plateau, neutrino science is being prioritized

Advanced technology within large-scale devices; searching for answers to the mysteries of the universe – this sort of Japanese science research is at a crossroads.

from **Iwate Nippo**

03 March 2018

Panel of Experts working group looks into regulations and risks of the ILC

Due to the recent changes in the ILC plans, the Panel of Experts at the Ministry of Education, Culture, Sports, Science and Technology has reinstated their Technical Design Report Verification Working Group. They had their second meeting on March 2nd at MEXT where they discussed regulations and risks associated with the ILC project.

from **KITAKAMI TIMES**

01 March 2018

Students at ILC Promotion Model Schools hope for the ILC

Starting in 2017, the Iwate Prefectural Government designated four high schools as "ILC Promotion Model Schools." This project aims to get students to apply their own knowledge and skills for getting involved with the ILC – even if that means something other than being a physicist!

from **CERN Courier**

16 February 2018

CLIC workshop focuses on strategy

During 2018 the CLIC accelerator and detector and physics collaborations will prepare summary reports focusing on the 380 GeV initial CLIC project implementation as inputs for the update of the European Strategy for Particle Physics, including plans for the project preparation phase in 2020–2025.

PREPRINTS

ARXIV PREPRINTS

[1804.01241](#)

Measuring the CP state of tau lepton pairs from Higgs decay at the ILC

[1803.11167](#)

Probing TeV scale origin of neutrino mass at lepton colliders

[1803.10645](#)

Slepton Production at e+e- Colliders in the Complex MSSM: A Full One-Loop Analysis

[1803.10475](#)

Lepton flavor violation via four-Fermi contact interactions at the International Linear Collider

[1803.09723](#)

Proton Colliders at the Energy Frontier

[1803.07977](#)

Les Houches 2017: Physics at TeV Colliders Standard Model Working Group Report

[1803.04795](#)

A Zee-Babu type model with $U(1)_{L\mu-L\tau}$ gauge symmetry

[1803.04359](#)

Probing Quartic Higgs Self-Interaction

[1803.03538](#)

Bounds on dipole moments of tau-neutrino from single photon searches in $SU(4)_L \times U(1)_X$ model at CLIC and ILC energies

[1803.01026](#)

An optical and terahertz instrumentation system at the FAST linac at Fermilab

[1803.00939](#)

Current and future constraints on Higgs couplings in the nonlinear Effective Theory

[1803.00842](#)

Light Z' boson from scalar boson decay at collider experiments in an $U(1)_{L\mu-L\tau}$ model

[1803.00677](#)

Probing the Type-II Seesaw Mechanism through the Production of Higgs Bosons at a Lepton Collider