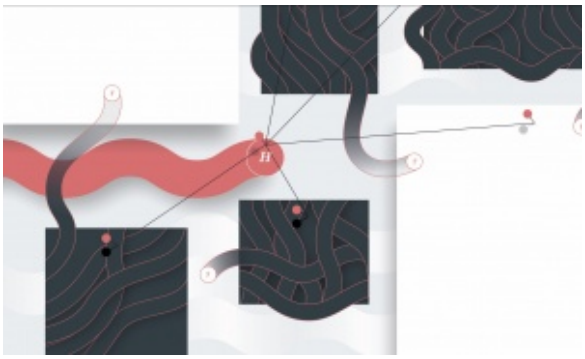
LC NEWSLINE
THE NEWSLETTER OF THE LINEAR COLLIDER COMMUNITY

DIRECTOR'S CORNER



ILC250 Higgs factory: ready for launch!

by Jim Brau

The ILC with a collision energy of 250 GeV in its initial stage will be a proper Higgs factory, producing half a million nearly background-free Higgs particles over the course of a decade for true model-independent Higgs studies, as well as other SM tests and searches for other, new particles. "Bring them on," says Jim Brau, Associate Director for Physics and Detectors in the Linear Collider Collaboration. "We are ready."

FEATURE

2018, a milestone year for Higgs factories in Asia

by Jie Gao

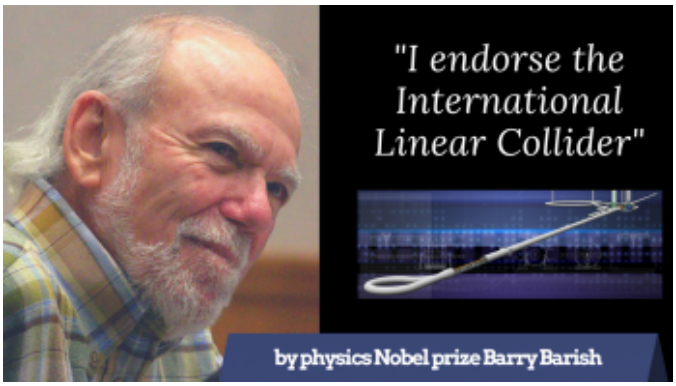
The year 2018 will indeed be a milestone year for both the International Linear Collider ILC and the Circular Electron Positron Collider in China, two complementary Higgs factories. Gao Jie, linear collider researcher and chair of the Asia Linear Collider Steering Committee proposes a historical recall of the two projects.

AROUND THE WORLD

Mark Thomson to lead STFC

Mark Thomson, professor for Experimental Particle physics at the University of Cambridge, will lead the UK's Science and Technology Facilities Council STFC from 1 April 2018. Thomson is an expert for particle flow calorimetry and detector development for future colliders like ILC and CLIC and is currently co-spokesperson for the DUNE collaboration.

VIDEO OF THE WEEK



Endorsing the ILC “in the strongest way”

“We have our hands around the mechanism that creates mass in nature but we need the tools to study it.” Barry Barish adds his voice to the #mylinearcollider video campaign, endorses the ILC "in the strongest way." Barish led the Global Design Effort for the ILC before he returned to LIGO and was awarded the Nobel Prize for the detection of gravitational waves.

IN THE NEWS

from *Kitakami Times*
23 February 2018
ILC Relay ⑦
We want people around the world to know how all of Iwate is working to bring about the ILC, so the ILC Relay is all about interviewing various people in Iwate who support the ILC project. For this ILC relay, I interviewed Daigo Fujinami of Oshu International Relations Association.

from *Kahoku Shinpo*
22 February 2018
〈ＩＬＣ〉ＩＬＤ整備へ研究者ら議論　一関で国際会議
「国際リニアコライダー（ＩＬＣ）」の活用法を話し合う国際会議が２０、２１日、岩手県一関市であった。ＩＬＣで電子と陽電子の衝突実験を測定する際に必要な国際大型測定器（ＩＬＤ＝インターナショナル･ラージ･ディテクター）の開発技術や整備について意見を交わした。On 20 and 21 February, International meeting for the ILC was held at Ichinoseki, Iwate Prefecture. Participants discussed about R&D on the particle detector, ILD.

from *Iwate Nippo*
22 February 2018
An interview with Ties Behnke, leader of the ILD team which had its conference in Ichinoseki – “It was important to hold it at the candidate site for the ILC”
A three-day international conference for the ILD (the detector to be used in the ILC particle collider) was held on February 20-22 in Ichinoseki. Team leader Ties Behnke, researcher at DESY, talked to the Iwate Nippo about the significance of holding the conference at the candidate site for the ILC, and his expectations going forward. (Interviewed by Takahiro Miura, Ichinoseki branch)
(Full translation provided by *Iwate & the ILC* website. **Read Japanese original** here).

from *Iwate Nippo*
21 February 2018
ILD meeting held in Ichinoseki – discussing technical issues going forward
February 20th kicked off a three-day international conference for the ILD (the detector to be used in the ILC particle collider) in Ichinoseki. Here, in the candidate site for the ILC, participants will talk through technical challenges as they prepare to realize the project.
(Full translation provided by *Iwate & the ILC* website. **Read Japanese original** here).

from *Iwate Nippo*
14 February 2018
Ichinoseki hosts a 3-day international conference on detectors for particle colliders
Around 70 researchers from around the world will come to the area to debate how to improve detector performance and decrease costs.
(Full translation provided by *Iwate & the ILC* website. **Read Japanese original** here).

from *Kitakami Times*
31 January 2018
The ILC Relay ⑥
This month’s relay is brought to you by Mr. Koetsu Norita! If you’ve been to the IEEE NSS-MIC 2016 in Strasbourg, LCWS 2016 in Morioka, or LCWS 2017 in Strasbourg, you’ve probably seen Mr. Norita and his bright blue blazer at the Tohoku booth. Mr. Norita works at the Business Center of the Tohoku Economic Federation (Tokeiren), helping local businesses develop their marketing strategies

PREPRINTS

ARXIV PREPRINTS

1802.08806
Latest R&D news and beam test performance of the highly granular SiW-ECAL technological prototype for the ILC

1802.07826
(α2) ISR effects with a full electroweak one-loop correction for a top pair-production at the ILC

1802.07616
Constraining the Higgs self couplings at e+e− colliders

1802.06980
Low-virtuality leptoproduction of open-charm as a probe of the gluon Sivers function

1802.06008
The CLIC Detector Concept

1802.00672
Separation of two electromagnetic or electromagnetic – hadronic showers in CALICE SiW ECAL and ILD

1802.00412
Summary and Conclusions of the First DESY Test Beam User Workshop

1802.00345
The Energy Deposition on the ILC Realistic Undulator Wall

1801.10565
The ILC positron target cooled by thermal radiation

1801.10471
Optimization of the beam crossing angle at the ILC for e+e- and gamma-gamma collisions

1801.10414
DQM4HEP – A Generic Online Monitor for Particle Physics Experiments

1801.10407
Latest developments on the highly granular Silicon-Tungsten Electromagnetic Calorimeter technological prototype for the International Large Detector

1801.10183
Measurement Techniques for Low Emittance Tuning and Beam Dynamics at CESR

1801.09730
Anomaly mediated SUSY breaking model retrofitted for naturalness