

LC NEWSLINE

THE NEWSLETTER OF THE LINEAR COLLIDER COMMUNITY

DIRECTOR'S CORNER



Decision on the International Linear Collider: “Not what we had hoped for but progress nevertheless”

“Today we did not get the green light we hoped for, but nevertheless there was a significant step forward with a strong political statement and, for the first time, a declaration of interest in further discussions by a senior member of the executive. We will continue to push hard,” said Lyn Evans, Director of the Linear Collider Collaboration.

AROUND THE WORLD

From KEK: ICFA received Japan’s view to the ILC



On 7 and 8 March 2019, the International Committee for Future Accelerators held its 83rd meeting at the University of Tokyo. In a session chaired by the Linear Collider Board, an official of the Ministry of Education, Culture, Sports, Science and Technology (MEXT) explained Japan’s view in regard to the International Linear Collider to ICFA members.

FEATURE

From CERN: CLIC collaboration considers collider’s unique potential

by Rickard Ström



The annual workshop of the Compact Linear Collider (CLIC) attracted more than 200 participants to CERN between 21 and 25 January. The annual workshop summarised the work done in 2018, including the completion of a project implementation plan. "The CLIC project offers a cost-effective and innovative technology and is ready to proceed towards construction with a Technical Design Report. Following the technology-driven timeline CLIC would realise electron-positron collisions at 380 GeV as soon as 2035," Steinar Stapnes, CLIC project leader, said. Read the full report.

VIDEO OF THE WEEK



ICFA briefing on future prospects of the ILC: the video

On 7 March, the chairs of the Linear Collider Board and the International Committee for Future Accelerators, Tatsuya Nakada and Geoffrey Taylor, as well as KEK DG Masanori Yamauchi, met national Japanese and international media for a press briefing on Japan's view on the future of the ILC. Watch the recorded press briefing.

IN THE NEWS

from *Helmholtz news*

11 March 2019

Entscheidung über Riesenbeschleuniger vertagt

In diesem Zusammenhang werde ich es als positives Zeichen, dass das japanische Forschungsministerium nun angekündigt hat, das Gespräch mit möglichen Partnern in Europa und den USA zu suchen. (...) Wir können im Moment nur sagen, dass wir den Bau eines Linear Colliders nach wie vor für sehr sinnvoll halten und weiterhin offen für Gespräche mit den japanischen Verantwortlichen sind.

from *Iwate Nippo*

10 March 2019

内閣府に復興担当相配置を 公明・山口代表が釜石視察

公明党の山口那津男代表は10日、釜石市を視察などで訪れ、ILC計画については「政府は可能性を求めて、積極的に行うべき。被災地の応援にもなる。今後も政府に働き掛ける」と語った。(On 10 March, Natsuo Yamaguchi, the Chief of the Komeito Party, visited Kamaishi City. He said "Government should actively pursue possibilities and support the ILC. It will be good for the affected areas. We will continue to work with the government.")

from *Toyo Keizai*

9 March 2019

東北を救う? 「国際リニアコライダー」とは何か

3月7日(木)は、「ある重要な決定の締切日」であった。しかるに当日の報道は以下のように割れている。いったいどれが本当なのだろう?(Thursday, March 7 was "the deadline for some important decisions." However, the coverage of the day is divided as follows. Which one is true?)

from *Mainichi Shimbun*

9 March 2019

ILC「前向きな一歩」 誘致結論先送り、関係自治体評価 / 岩手

ILC誘致について、文部科学省が7日、事実上結論を先送りにしたことを受け、誘致候補地の自治体などもコメントを出した。一関市の勝部修市長は、ICFAの記者会見内容を踏まえ、「小さいけれど前向きな一歩と捉えている」と改めて評価した。(MEXT effectively postponed the conclusion of the invitation to the ILC, local governments of the candidate site for the ILC also commented. Shuichi Katsube, the mayor of Ichinoseki City, re-evaluated that "I see it as a small but positive step," based on the contents of the ICFA press conference.)

from *Nifty News*

8 March 2019

次世代加速器、議論見守る = 菅官房長官

菅義偉官房長官は8日の記者会見で、文部科学省が次世代大型加速器ILC誘致の結論を先送りしたことについて「正式な学術プロセスで議論することが必要だ。国内外の研究者、コミュニティーにおける議論を見守る」と述べた。(Asked by the Japanese government response to MEXT announcement to postpone the conclusion of attracting the ILC at the press conference on Tuesday, Secretary-General Yoshihide Suga said, "It is necessary to discuss about the ILC in a formal academic process. I will watch closely the future discussion between science community")

from *Scientific American*

8 March 2019

Japan Delays Decision for Hosting Next Big Particle Collider

"The decision by Japan...is encouraging," says Pushpa Bhat, a physicist at Fermilab National Accelerator Laboratory. But other researchers are concerned that delaying a formal decision will dampen international support and be read as "an effective 'no,'"

from *Nikkei*

8 March 2019

ILCで文科省見解、岩手県など前向きに受け止め

ILCを日本に建設する構想について、文部科学省が7日、研究者の国際会議で「誘致の表明には至らない」とする一方、「計画に関心を持って国際的な意見交換を継続する」との見解を示した。同日夜、建設候補地の岩手県などからは「歓迎」「前進」と前向きに受け止める声が続出した。実現へ希望をつないだ形だ。(MEXT said at an international conference of researchers "Japan does not reach a declaration of attraction" on the ILC in Japan, while continuing "international exchange of ideas with an interest in planning". People from Iwate Prefecture, which is the possible construction site of the ILC, received the comment as positive "welcome" and "progress". It is a form that brings hope to realization.)

from *Nature*

7 March 2019

Plans for world's next major particle collider stuck in limbo

Japan's lack of commitment makes it harder for European physicists to consider the ILC in a major exercise designed to guide funding for the next six years. The exercise, called the European Strategy for Particle Physics, must make its recommendations by May 2020. If Japan doesn't commit by then, the ILC risks being seen as a low priority, making it harder to get European funding.

from *Science Magazine*

7 March 2019

Japanese government punts on decision to host the International Linear Collider

"There was disappointment" among the scientists at the meeting, ICFA chair Geoffrey Taylor, an experimental physicist at the University of Melbourne in Australia admitted at a briefing this evening in Tokyo. "People were hoping there would be a statement

that Japan was willing to host the ILC.”

from *Physics World*

7 March 2019

Disappointment as Japan fails to commit to hosting the International Linear Collider

Today's announcement means that government agrees with the Japanese particle physics community that the ILC is worth pursuing and that it will enter negotiations to host the machine. However, it will only give the ILC the final go-ahead if those negotiations are successful and if international support, particularly funding, can be found.

from *Symmetry Magazine*

7 March 2019

Japan defers ILC decision

Government officials spoke positively about the proposed collider and recommended Japanese research organization KEK approach governments and funding agencies in other countries to discuss options for sharing its associated costs, the chair of ICFA said today in a press conference in Tokyo. But the officials did not go as far as declaring their interest in hosting the ILC.

from *Science News*

7 March 2019

Japan puts plans for the world's next big particle collider on hold

“We don't see it as a dead end,” committee Chair Geoffrey Taylor, a physicist at the University of Melbourne in Australia, said at a news conference streamed live online after the meeting. “We see it as a delay.”

from *Hipertextual*

7 March 2019

Sin el compromiso de Europa y EEUU, Japón aplaza el Colisionador Lineal Internacional

El país nipón busca un acuerdo de colaboración internacional con Europa y Estados Unidos para albergar el ILC, tal y como se ha explicado en la rueda de prensa celebrada este jueves en la que han participado el profesor Tatsuya Nakada, representante del LCB, el organismo que promueve y apoya los colisionadores lineales.

from *De ingénieur*

7 March 2019

Japan twijfelt nog steeds over 'Higgsfabriek'

Een heikel punt in het hele verhaal, dat ook al werd aangestipt door de Wetenschappelijke Raad, is dat Japan graag op voorhand wil weten in hoeverre met name de VS en Europa bereid zijn om mee te betalen. 'Op dat punt wordt de bal nu een beetje heen en weer gespeeld', zegt Du Pree. 'De VS en Europa willen dat Japan een beslissing neemt, terwijl Japan eerst een concrete financiële toezegging van het Westen wil.'

from *Sankei News*

7 March 2019

「日本が I L C 計画支持と確認」 国際会議議長が会見で評価

ILCについて、7日に東京都内で開かれた物理学の国際会議で文部科学省が見解を発表したことを受け、国際会議のジェフリー・テイラー議長は同日の記者会見で「日本が計画を支持していることを確認できた。ILCプロジェクトのマイルストーンとなった」と評価した。(Following the announcement by MEXT on the 7th at the International Conference on Physics held in Tokyo on March 7, Geoffrey Taylor, ICFA chair, said, “We confirmed that Japan support the ILC. This is a milestone of the ILC project.”)

from *Neue Zürcher Zeitung*

7 March 2019

Japan vertagt die Entscheidung über den Bau eines Linearbeschleunigers

Die japanische Regierung hat die Entscheidung über den Bau des International Linear Collider (ILC) vertagt. Wie am Donnerstag bekannt wurde, hat sie zwar Interesse an dem Grossprojekt bekundet. Zu einem Votum, den Beschleuniger im eigenen Land zu bauen, hat sie sich aber nicht durchringen können.

from *Sankei News*

7 March 2019

柴山昌彦文科相「立地地域への効果考慮」 I L C の見解表明で

ILCについて7日、文部科学省が見解を発表したことを受け、柴山昌彦文科相は同日午後、記者団の取材に応じた。現時点で誘致の表明に至っていないにもかかわらず、意見交換を行う背景については「ILC計画がもたらす技術的研究の推進や立地地域への効果の可能性にかんがみ」と説明した。On Following the announcement from MEXT about its view on ILC, Masahiko Sasayama, the Minister of MEXT, responded to the interviews by media. Even though it has not yet announced its attraction, he explained that the reason why the government maintain the international discussion, saying “I consider the possibility of the ILC to promote the technical research and also the effect on the candidate site.”)

from *NRC Handelsblad*

7 March 2019

Of de Japanse deeltjesversneller er komt blijft nog even onzeker

„Het is niet gek dat het al lang duurt”, zegt Kluit, die betrokken is bij de ILC. „Slechts eens in de 30 jaar wordt er besloten om zo'n groot natuurkunde-experiment te bouwen.” De fysici en technici zijn er nu klaar voor. Het ontwerp is af en er zijn twee locaties in Japan die aan alle huisvestingseisen voldoen. Het wachten is nu op de overheid.

from *Sankei News*

7 March 2019

国際的な意見交換継続 次世代加速器ILCの政府見解全文

文部科学省の磯谷桂介研究振興局長は7日、東京都内で開かれた素粒子物理学の国際会議で、次世代加速器「国際リニアコライダー（ILC）」に関する見解を発表した。全文は次の通り。(Mr. Keisuke Isogai, Research and Development Director of the Ministry of Education, Culture, Sports, Science and Technology (MEXT) announced Japan's view on the next-generation accelerator "ILC". The full text is as follows.)

from SciDev.Net

5 March 2019

Q&A: Indian physicist makes mark in global particle research

Godbole was on the panel of the International Detector Advisory Group for the International Linear Collider and is now a member of the Linear Collider Board. This year, she was awarded the Padma Shri, one of India's highest civilian honours, for her contribution to physics. Additionally, Godbole is advocating for more women scientists to stay their course and make their mark in a largely male-dominated industry.

from Sankei News

27 February 2019

【日曜に書く】財務相、麻生太郎殿 論説委員・中本哲也

ILCは間違いなく、日本にとって絶好球である。湯川秀樹博士以来の実績と伝統がある素粒子物理学の分野で国際貢献を果たす。陸続きの国境をもたない日本に国際科学都市が形成され、グローバル化が進展する。(ILC is definitely the best ball for Japan. We will make an international contribution in the field of elementary particle physics with results and traditions since Dr. Hideki Yukawa. An international science city is formed in Japan without a land-based border, and globalization advances.)

from Denki Shimbun

25 February 2019

ILC議連など、国家プロジェクト化求める決議 / 産学官や地元挙げて誘致促す

岩手県北上山地へILCの誘致を目指すILC研究所建設推進議員連盟とILC誘致実現連絡協議会は都内で総会を開いた。ILCを国家プロジェクトとして位置付けることなどを求めた「国際リニアコライダー誘致実現に向けた決議」を全会一致で採択した。(The Federation of Diet Member for the ILC and Liaison Committee for Realization of ILC, which aims to attract ILC to the Kitakami Mountains of Iwate Prefecture, held a general meeting in Tokyo. The "Declaration for Attracting International Linear Colliders," which calls for the ILC to be a national project, was unanimously adopted.)

from WEBRONZA (Asahi Shimbun)

7 February 2019

科学政策の元担当者から見た国際リニアコライダー

私は、1990年前後に米国のSSC計画が持ち上がったとき、旧科学技術庁の国際課長だった。2011（平成23）年から6年間はOECDの「グローバルサイエンスフォーラム」という委員会の議長を務め、1国では支えきれない大規模研究施設にあり方についての議論をまとめた。それらの経験をもとに、ILCの問題を考えてみたい。(I was the international director of the former Science and Technology Agency when the US SSC program came up around 1990. For six years from 2011, I chaired the committee called "Global Science Forum" of the OECD, and summarized the discussion on the way to a large-scale research facility that can not be supported in one country. Based on those experiences, I would like to consider the problem of ILC.)

PREPRINTS

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[2665318](#)

TimePix3 performance in power pulsing operation

[2663337](#)

Status of Silicon Detector R&D at CLIC

[2654139](#)

Time Resolution Studies with Timepix3 Assemblies with Thin Silicon Pixel Sensors

[2019.02.049](#)

Comparison of small collection electrode CMOS pixel sensors with partial and full lateral depletion of the high-resistivity epitaxial layer

[1901.10318](#)

Tracking performance and simulation of capacitively coupled pixel detectors for the CLIC vertex detector

[1903.04135](#)Feasibility at the LHC, FCC-he and CLIC for sensitivity estimates on anomalous τ -lepton couplings[1903.01717](#)

Measurement of the electron transmission rate of the gating foil for the TPC of the ILC experiment

[1903.01629](#)

The International Linear Collider: A Global Project

[1902.10253](#)

Report of the International Committee for Future Accelerators

[1902.10125](#)

Beyond the Standard Model physics at CLIC

[1902.08752](#)

Pixel detector R&D for the Compact Linear Collider

[1902.08032](#)Physics potential for the measurement of $\{\text{large } \sigma(\text{HZ}) \times \text{BR}(\text{H} \rightarrow \text{WW}^*)\}$ at the 250 GeV ILC[1902.07964](#)

On Future High-Energy Colliders

[1902.07786](#)

Optimization of Undulator Parameters for 125 GeV Drive Beam

[1902.07755](#)

Energy Deposition along The Helical Undulator at ILC-250GeV

[1902.07744](#)

Status of the undulator-based ILC positron source

[1902.07246](#)

Scanning Strategies at the Top Threshold at ILC

[1902.06631](#)Probing the Scale of New Physics in the ZZ γ Coupling at e+e- Colliders[1902.06118](#)

Search for Extra Scalars Produced in Association with Muon Pairs at the ILC

[1902.06029](#)Study of the $h\gamma Z$ coupling using $e+e- \rightarrow h\gamma$ at the ILC[1902.05912](#)

Path to the 0.01% Theoretical Luminosity Precision Requirement for the FCC-ee (and ILC)

[1902.05519](#)

Studies on Particle Identification with dE/dx for the ILD TPC

[1902.05266](#)

Performance of alternative scintillator tile geometry for AHCAL

[1902.05245](#)

Study of fermion pair events at the 250 GeV ILC

[1902.05242](#)

Quark charge identification for e^+e^- to qq^- study

[1902.05021](#)

Prospects of measuring Higgs boson decays into muon pairs at the ILC

[1902.02516](#)

ILD MC production for detector optimization

[1902.01987](#)

Performance of a GridPix TPC readout based on the Timepix3 chip

[1902.00110](#)

Beam test performance of the highly granular SiW-ECAL technological prototype for the ILC

[1901.10206](#)

The International Linear Collider: Prospects and Possible Timelines

[1901.09829](#)

The International Linear Collider. A Global Project

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The International Linear Collider. A European Perspective

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Double Higgs boson production and Higgs self-coupling extraction at CLIC

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