

#### **FEATURE**

# New ILC videos released



Have you seen the latest video from ILC? It features interviews with Jenny List, Working Group Leader in the IDT, SLAC theorist Michael Peskin, and other experts discussing the exciting physics breakthroughs that the ILC could deliver. They also highlight the project's global collaboration, the various educational opportunities for students, and the focus on sustainability.

#### AROUND THE WORLD

# A turnkey for HEP

by Camila Sampaio Machado



If you've ever battled with incompatible software, there is hope on the horizon. All future collider projects, from ILC to muon collider, have come together to work on a one-size-fits-all solution: Key4hep. Find out what this software stack is up to...

# Science Cafe for future scientists: Over 900 people watched live online

by Rika Takahashi

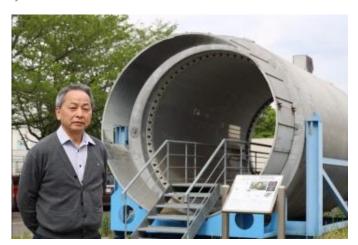


A group of young individuals eager to pursue careers in the field of science recently attended the ILC Science Cafe where they learn about the Higgs boson research and the ILC. They were highly enthusiastic about the experience.

#### AROUND THE WORLD

# Akira Yamamoto receives high Japanese Order

by Yumi Aoki



Professor Emeritus of KEK and former ILC Project Manager Akira Yamamoto was awarded the Order of the Sacred Treasure, Gold Rays with Neck Ribbon, in recognition of his many years of distinguished service in particle physics. Congratulations, Akira!

#### IMAGE OF THE WEEK



### Behind the scenes

by Barbara Warmbein

When a camera crew descends on a research lab, places that scientists see every day can suddenly appear totally different. When WG3 leader Jenny List showed the APS TV team and presenter Nico Gutjahr around the German lab DESY, a control room became the setting for a one-on-one interview and the accelerator module test facility turned into an interactive classroom. Here are some impressions from the video shoot for the latest ILC video. All images: Joseph Piergrossi, DESY

#### IN THE NEWS

#### from Iwate Nippo

28 April 2023

#### 科学進展、多面的な意義発信 議連・有識者がパネル討論

国際リニアコライダー (ILC) の誘致実現を目指す国会議員連盟は27日、拡大総会と併せてパネル討論を行った。科学の進展だけでなく、産業経済への経済波及効果、世界平和への寄与など多面的な意義を有識者が発信した。

#### from Sankei

16 April 2023

#### 「科学者はフェイクに騙されない」 重力波でノーベル物理学賞バリッシュ氏が説く

物理学の重大問題だった重力波を世界で初めて検出し、宇宙の謎に迫る新たな道を開いた功績で、2017年にノーベル物理学賞を受賞した米カリフォルニア工科大名誉教授のバリー・バリッシュ氏(87)が今年3月、来日し、産経新聞の取材に応じた。重力波観測で見える宇宙の謎や、東北に建設が検討される次世代加速器「国際リニアコライダー」(ILC)実現への期待など、今の思いを語った。

#### from Newswire

27 March 2023

#### LASER VORTEX COULD BRING NUCLEAR FUSION A STEP CLOSER TO REALITY

An additional benefit arising from the technology being developed is that it could enable the construction of positron beam accelerators 1,000 times smaller than is currently possible. As such, the future International Linear Collider planned in Japan with a length of 31 km, could be as short as 31 m.

#### from AK&M

10 March 2023

#### Созданные в ТГУ образцы сапфировых сенсоров не имеют мировых аналогов

Сотрудники центра «Перспективные технологии в микроэлектронике» ТГУ разрабатывают инновационные технологии создания многоэлементных сенсоров на основе арсенида галлия, компенсированного хромом (HR GaAs:Cr), и на основе монокристаллического сапфира. Они оптимизируют характеристики арсенид-галлиевых сенсоров и оценят перспективность использования новых сапфировых сенсоров для инструментального обеспечения отечественных мегасайенс-проектов СКИФ (Новосибирск), НИКА (Дубна), РИФ (Владивосток), международного проекта ILC (International Linear Collider) и других.

#### from Iwate Nippo

9 March 2023

#### 岸田首相「復興、息長く支援」 震災12年インタビュー

岸田文雄首相は8日、東日本大震災の発生から12年に合わせて岩手日報社など被災3県4社のインタビューに答え「震災復興は岸田政権にとって最重要課題の一つ。息の長い取り組みをしっかり支援できるよう確実に復興財源を確保する」と述べた。国際リニアコライダー(ILC)については「計画に対する期待は大きいと受け止めている。何ができるか、対応を考えたい」との認識を示した。

#### from CERN

7 March 2023

#### Take part in the new seminar series on future colliders

The aim of this new series is to create an information and discussion forum in which to present the various activities related to the different projects being studied: the Future Circular Collider (FCC), the Compact Linear Collider (CLIC) / International Linear Collider (ILC) and the Muon Collider.

#### from Kahoku Shinpo

2 March 2023

#### KEK機構長、ILC推進の現状説明 東北推進協議会が仙台で講演会

岩手、宮城両県にまたがる北上山地が建設候補地の超大型加速器「国際リニアコライダー(ILC)」の誘致を目指す東北ILC 推進協議会は1日、仙台市で講演会を開いた。国際情勢の混乱を乗り越えてILCを整備するには、世界中の研究者や行政の英知 が求められるとの認識を共有した。

#### from Japan Times

24 February 2023

#### Global research facility could change Tohoku

In the coming years, the International Linear Collider (ILC) might be built 100 meters underground in the mountains. When we hear the term "accelerator," we are likely to think of the Large Hadron Collider (LHC) at CERN (the European Organization for Nuclear Research) near Geneva, Switzerland. But while the LHC is circular, with a circumference of 27 km, the ILC planned for Tohoku is linear, extending for 20 km.

#### from Japan Times

24 February 2023

#### 東北の地に建設が期待される、国際的な研究施設があるのをご存じですか?

東北地方にそびえる北上山地。約260kmに渡り山々が連なり、その大部分は岩手県に位置している。その北上山地の地下100mに、国際的な研究施設建設の計画があるのをご存じだろうか? それが〈国際リニアコライダー〉(International Linear Collider: ILC)である。

#### from TBS News

#### 9 February 2023

#### 候補地"北上山地"に一本化から10年経過「ILC」の実現に向けて期成同盟会結成

宮城と岩手にまたがる北上山地の地下に設置を目指すILC=国際リニアコライダーの誘致に向け、要望活動に特化した期成同盟会が8日、発足しました。

#### from Iwate Nippo

#### 9 February 2023

#### ILC実現可能性「高い」 KEK山内機構長

グローバルな加速器をどう造るか、世界中の研究者や行政の方々の英知が求められる。各国で次世代加速器の検討はあるが、ILCの実現可能性が最も高い。適切なタイミングに向け、今やるべきことを着実に積み重ねるのが最善の道だ。

#### from NHK

#### 8 February 2023

#### ILC誘致へ一関市で期成同盟会の設立総会

次世代の大型実験装置、 I L C = 国際リニアコライダーの誘致に向け岩手県と宮城県の自治体や関係団体などでつくる期成同盟会の設立総会が8日一関市で開かれました。

#### from Iwate Nippo

#### 8 February 2023

#### ILC技術開発へ国際新組織 機運醸成、今春めど設立

国際リニアコライダー(ILC)の実現を目指す国内外の研究者でつくる国際推進チーム(中田達也議長)は、この春に関連技術の開発を担う「ILCテクノロジーネットワーク」を新設する。世界の研究機関の連携体制を強化し、プロジェクトの実現に向けた国内外の機運を高める。

#### from Symmetry

#### 7 February 2023

#### How to do particle physics in a climate emergency

Discussions about sustainability have also been part of planning the proposed International Linear Collider in Japan. Known as the "Green ILC," a group of researchers are working on ways to make the facility more environmentally friendly, such as using renewable energy to power the collider and recovering and reusing energy for local communities.

#### from Hokkoku Shimbun

#### 3 February 2023

#### 加速器誘致「25年に転機」

宇宙誕生の謎を探る次世代の大型加速器「国際リニアコライダー(ILC)」の日本誘致について、高エネルギー加速器研究機構(KEK、つくば市)の山内正則機構長は3日までに共同通信の取材に応じ、ウクライナ侵攻などで国際情勢が混乱する今、「日本政府が提案するのは適切ではない」と述べた。誘致を切り出すタイミングとしては、欧州で進む大型加速器計画の結論が出る「2025年が一つの転機になる可能性がある」と指摘した。

#### from Iwate Nippo

#### 1 February 2023

#### ILC誘致へ期成同盟会8日結成 岩手、宮城の17市町首長ら

国際リニアコライダー(ILC)誘致に向け、建設候補地の一関市や奥州市、気仙沼市など岩手、宮城両県17市町の首長らは8日、ILC実現建設地域期成同盟会(仮称)を結成する。立地構想が進展しないことへの危機感が背景にあり、要望活動を主とする新組織を立ち上げ、政府など関係機関への働きかけを強化する。

#### from Symmetry

#### 17 January 2023

#### Energy consumption, cost considerations could shape future of accelerator R&D

The ILC provides a useful counterpoint to some of the other accelerator proposals evaluated by the ITF. "ILC is shovel ready, and if you give us the money, we're going to build it," Turner says.

#### from Sankei

#### 17 January 2023

#### 全国キャラバンの維新・馬場代表が岩手で会見

馬場代表は中司宏衆院議員らと岩手県庁で達増拓也知事と30分間にわたり面談し、県内が候補地となっている国際リニアコライダー(ILC)の誘致や県内の医師不足解消について要望を受けた

#### from Mainichi News

#### 27 January 2023

#### 次世代加速器 東北誘致に「黄信号」 しぼんだ機運、巻き返せ 関係者「政治決断が必要」

宇宙誕生の謎を探る次世代の大型加速器「国際リニアコライダー(ILC)」の日本誘致に"黄信号"がともっている。昨年2月に文部科学省の有識者会議が「時期尚早」との報告書を発表、機運が一気にしぼんだためだ。

#### from Iwate Nippo

#### 24 December 2022

ILC関連倍増9.7億円 23年度予算案、概算要求の満額

政府が23日に閣議決定した2023年度予算案で、国際リニアコライダー(ILC)関連は22年度当初予算から倍増の9億7千万円を計上した。概算要求の満額。ILC計画につながる先端加速器の性能向上を図る

#### from FRONTLINE

#### 17 November 2022

#### Recent study assesses carbon footprint of particle colliders

They looked at CERN's Future Circular Collider (FCC), China's Circular Electron Positron Collider (CEPC), and three proposed linear colliders: Japan's Linear Collider, CERN's Compact Linear Collider, and the US' Cool Copper Collider (C 3). The least-polluting option, the study found, was the FCC.

#### from La Repubblica

#### 14 November 2022

#### Quanto inquinano gli acceleratori di particelle? Lo studio del Cern

Le fabbriche di Higgs alternative a Fcc considerate nello studio appena pubblicato sono il Circular Electron Positron Collider (Cepc) cinese, lo International Linear Collider (IIc) giapponese, il Compact Linear Collider (Clic) del Cern e il Cool Copper Collider (C3) statunitense (IIc, Clic e C3 sono acceleratori lineari, a differenza di Lhc, Fcc e Cepc che sono circolari): gli scienziati ne hanno valutato l'impatto ambientale considerando quanta energia consumerebbero, in media, per ogni bosone di Higgs prodotto.

#### from Close up engineering

#### 29 November 2022

#### Quanto inquinano gli acceleratori di particelle?

Stando ai dati riportati, il consumo di FCC è pari a 3 MWh per ogni bosone di Higgs prodotto. L'impatto ambientale di FCC viene confrontato con quello di altri acceleratori: il Circular Electron Positron Collider (CEPC) cinese, l' International Linear Collider (ILN) giapponese, il Compact Linear Collider (CLIC) del Cern e il Cool Copper Collider (C3) statunitense.

#### **PREPRINTS**

#### **ARXIV PREPRINTS**

#### 2304.10299

Statement from the American Linear Collider Committee to the P5 subpanel

#### 2303.16514

Axion Like Particle Search at Higgs Factories

#### 2303.03362

Associated quarkonia production in a single boson e+e-annihilation

#### 2301.13463

Higgs production at next generation e+e- colliders

#### 2301.07089

Problems of studying yy→yy scattering at e+e- and yy colliders

#### 2301 03816

Sub-GeV dark matter search at ILC beam dumps

#### 2212.12973

Role of polarizations and spin-spin correlations of W's in e–e+ $\rightarrow$ W–W+ at s $\sqrt{=}250$  GeV to probe anomalous W–W+Z/ $\gamma$  couplings

#### 2212.12626

Excited doubly heavy baryons production via Higgs decays

#### 2212 07889

Measurement of Br(H→Zy) at the 250 GeV ILC

#### 2212.06050

Search for new particles at the ILC

#### 2211.14230

Overview of theoretical precision of the luminosity at future electron-positron colliders

#### 2211 12536

Measuring neutrino dynamics in NMSSM with a right-handed sneutrino LSP at the ILC

#### 2211.10513

Quantum information and CP measurement in H $\rightarrow$ τ+τ- at future lepton colliders

#### 2211.09863

Muon g–2 in a 2HDM assisted by inert scalars: probing at the ILC  $\,$ 

#### 2211.08721

#### 2211.07243

Imprint of quark flavor violating SUSY in h(125) decays at future lepton colliders



FEATURE

# New ILC videos released

18 May 2023

Unravelling the mysteries of the Universe: International Linear Collider

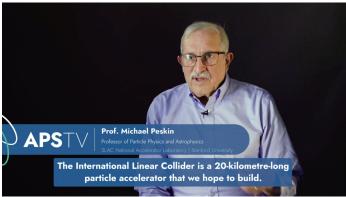


APS TV paid us a visit in early 2023 to get the latest news on the status of the ILC. This video was shown at the American Physics Society Meeting in March.

Two types of videos were made this time: <u>a longer one</u> and <u>a shorter one</u>.

Jenny List, Working Group Leader in the International Development Team, SLAC theorist Michael Peskin and others talk about the promising physics insights the ILC would bring, the international nature of the project, the many opportunities for students and the attention that is given to sustainability.





The short version is a one-minute brief description of the ILC. We encourage you to use it in your presentations and events. Video file for the short version is available <a href="here">here</a>.

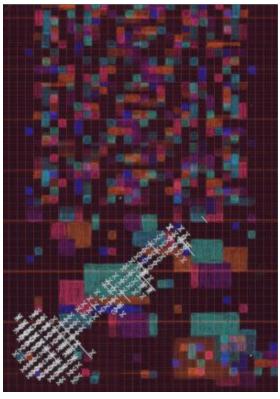
#### $\underline{\mathsf{APS}} \mid \underline{\mathsf{DETECTOR}} \; \mathsf{R\&D} \mid \underline{\mathsf{ILC}} \mid \underline{\mathsf{PHYSICS}} \; \mathsf{CASE} \mid \underline{\mathsf{VIDEO}} \mid \underline{\mathsf{YOUTUBE}}$



# A turnkey for HEP

Camila Sampaio Machado | 18 May 2023

Many scientists have probably been here: you work with a software and figure out later that its output is incompatible with other analysis parts. More than never-racking, incompatibility between (often) used software and libraries is highly inefficient, requires high maintenance, and wastes resources. Furthermore, much basic code needs to be developed to investigate new detector concepts for new colliders. However, often similar solutions have already been developed for another experiment. How great would it be to reuse solutions and save time?! A turnkey software stack called Key4hep is key.



A new software stack called key4HEP promises to make life more efficient for detector developers. Artwork: Camila Sampaio Machado

"The main motivation for Key4hep was to create a turnkey software stack with interoperable components and examples that allows you to very quickly get started with implementing your ideas for a new detector technology, rather than reinventing the wheel. This way, the scientists can focus on the new physics and R&D challenges rather than on software technicalities," DESY software expert and Key4hep co-convenor Frank Gaede explains.

This "turnkey software stack" – a collection of independent components that work together to support the execution of an application – seeks to have all the libraries needed for HEP experiments, including the generation, simulation, reconstruction, and analysis of collider events under one umbrella, converting a set of separate packages into a turnkey system. The project aims to define a common software framework for all future collider projects such as CEPC, CLIC, FCC, ILC, and the Muon Collider.

The ILC community has for the last twenty years developed common generic software tools in the iLCSoft framework. These tools were jointly developed, maintained and used by ILD, CLICdp and SiD for many linear collider studies in the past. With new the new circular machines now proposed as alternatives for a Higgs factory, it has become time to enlarge the activity of developing common tools and actively contribute to the wider Key4hep project. "We will bring many of the tools and experience from iLCsoft to Key4hep and at the same time use this opportunity to modernise our software stack for the next decades of Future Collider studies," says Gaede.

The idea emerged as consensus among different communities in the "Future Collider Software Workshop," which took place in Bologna in 2019 and was organised by F. Bedeschi (INFN Pisa), M. Caccia (INFN and Univ. Insubria) and P. Giacomelli (INFN Bologna)—and is also an important project for the future in the CERN Strategic R&D Programme on Technologies for Future Experiments. The main goal of Key4hep is to re-use established solutions, integrate and further develop packages to create a whole data processing framework that can be user-friendly, low-maintenance, and long-lasting. It contains around 300 packages, where 60 are experiment-specific, 50 are HEP-specific, and 200 are general-purpose.

To build a consistent stack of software, it is necessary to carefully choose the standards to be adopted to build its foundation. The components should speak the same language, the 'Event Data Model.' The new EDM4hep is one of the Key4hep ingredients, and it was inspired by the LCIO and FCC-edm event data models, which have been successfully used in the past years. Another key ingredient is the data processing framework, which consists of the skeleton of the software infrastructure. Here, the choice was the software architecture GAUDI, developed initially by LHCb and now used by ATLAS and FCC. For the geometry information or detector description, the choice was DD4hep, which is already largely used by the community. The scientific package manager Spack allows for an efficient and consistent link between the packages. This foundation in a shared software environment will also make writing specialised components easier.

Finally, Key4hep aims at not only librarians and developers but also users, including examples for simulations and reconstruction for detectors, making the days of battling with numerous incompatible software programs a thing of the past.

Further reading:

https://link.springer.com/content/pdf/10.1140/epjp/s13360-021-02213-1.pdf

https://cds.cern.ch/record/2649646

EFFICIENCY | KEY4HEP | PROGRAMMING | SOFTWARE | SUSTAINABILITY



# Science Cafe for future scientists: Over 900 people watched live online

Rika Takahashi | 18 May 2023

On Sunday, 19 March, the ILC Science Cafe entitled "How did the Universe begin and how did it come to be what it is today? " was held, co-hosted by KEK and ILC-Japan.

This outreach and educational event was designed to have fun while learning about the research of the mysteries of the universe.

Applications were invited from junior high school students and above who have a keen interest in pursuing science-related careers in the future. 21 participants, ranging from the age of twelve to senior university students, were selected to gather at Fukutake-hall at the University of Tokyo.

Professor Shoji Asai from the University of Tokyo, and Chair of ILC-Japan gave a fascinating lecture on the beginnings of the universe and its evolution. The lecture was broadcasted live on QuizKnock's YouTube channel, "QuizKnock 学ぼう," which garnered over 900 viewers in real-time. It was an engaging talk that captivated the audience's attention. QuizKnock is a web media popular among young people in Japan operated on the concept of "learning that starts with fun" having reputation for providing informative and educational content.

Asai delivered the lecture, using a mix of analogies to make it easier to understand. When the content became a bit difficult, the moderator, Dr. Shunki Sugai of QuizKnock, who earned PhD in physics from the University of Tokyo, stepped in to make it more enjoyable and understandable. The audience survey showed that many participants found the lecture enjoyable because it was presented from the viewer's perspective. The first part of the lecture is <u>available as an archive</u>.



Shunki Sugai of QuizKnock (left) moderates the workshop

The second part of the event was a workshop that included group discussions on questions that arose after listening to Asai's lecture, or on questions that one wondered, "Is it true?" Participants of various ages and backgrounds were mixed and divided into small groups, and graduate students and young researchers joined each group as facilitators. They were close in age, which allowed the participants to ask questions and express their opinions without hesitation, and think about their own career paths.

The workshop participants were thrilled to have gained valuable insights into the Higgs boson research and the upcoming plans for the International Linear Collider. They expressed their gratitude for the impact that the workshop had on their mindset and approach to various aspects of life. Some were delighted to have discovered the joy of solving problems, while others recognized the significance of asking questions. A few participants emphasized the importance of verifying information before accepting it as true. The event was a great platform for honing critical thinking skills, with many attendees raising thought-provoking queries like "Why and how is this true?"

KEK and ILC-Japan will continue to plan similar events in the future.

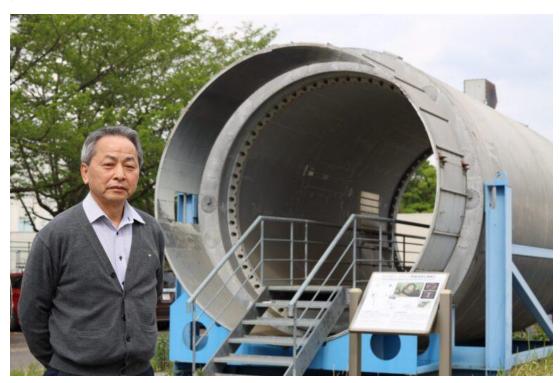
#### EDUCATION | ILC-JAPAN | JAPAN | KEK | OUTREACH | YOUTUBE



# Akira Yamamoto receives high Japanese Order

Yumi Aoki | 18 May 2023

Professor Emeritus Akira Yamamoto of KEK and former Project Manager for Global Design Effort was awarded the Order of the Sacred Treasure, Gold Rays with Neck Ribbon by the Emperor of Japan, in recognition of his many years of distinguished service in particle physics during the 2023 Japanese spring conferment. This Order is awarded to persons who have been engaged for many years in the public service.



Professor Emeritus Akira Yamamoto of KEK (Photo Credit: KEK)

Yamamoto has been instrumental in the development of superconducting magnets and the application of low-temperature technology since its early days, playing a central role in the development of superconducting magnets for the Topaz experiment at the Tristan accelerator in Japan, the Balloon-borne Experiment with a Superconducting Spectrometer (BESS), the Large Hadron Collider (LHC) and the ATLAS experiment at the European Organization for Nuclear Research CERN. The technology established by Yamamoto is indispensable for current accelerator experiments. For these achievements, he had already been awarded the Medal with Purple Ribbon in the spring of 2016.

In this article, we present an interview with Prof. Yamamoto about his achievements and thoughts.

The roles of "electric field" and "magnetic field" are essential to handle accelerator particle trajectories. Yamamoto's research career began with research on using electric fields.

"The first effort at KEK was to develop a technique for sorting particles using a high electric field. Various particles produced secondarily by the accelerator can be sorted and separated according to their velocity by passing them through a high electric field. At the time, K mesons were the focus of KEK accelerator and physics experiments. It was crucial to provide a beam of high purity by sorting and separating them from other particles. This development made it possible to provide a high purity, high-quality beam of K mesons, which are rarely produced and decay quickly, to physics experiments. The results of this research became my doctoral dissertation."

In 1977, KEK launched the superconducting technology development project. Yamamoto became involved in research on superconducting magnets.

An example of his early work, an actual superconducting magnet for the Topaz experiment at the Tristan accelerator, which Yamamoto played a central role in developing, is on display in front of the KEK Superconductivity and Cryogenics Center.

When conducting a collider experiment, it's necessary to have measuring instruments set up around the collision point. These instruments rely heavily on superconducting magnets, which are essential for the experiment to be successful.

The superconducting magnet developed for the Topaz experiment is unique because it seeks to achieve a "transparent magnetic field." "Transparent" means that the magnet provides a strong magnetic field while minimising its material and thickness to the absolute minimum. By doing so, unwanted reactions are minimised, and the particle observation performance is enhanced.

The ultimate goal is to create a magnet where nothing exists but a magnetic field. Yamamoto's achievement has brought us one step closer to realising this goal.

Yamamoto's extensive experience in this field spans over 30 years and has resulted in some groundbreaking contributions to our field. One of his most notable achievements was his involvement in developing superconducting magnets for the LHC accelerator beam focusing and the ATLAS experiment. This was a significant contribution from Japan to CERN.

"As I continued my research, I became very honor with my role in supporting particle physics experiments by providing the 'field' for them. And I have come to believe that 'supporting' is a wonderful thing to do."

The development of superconducting magnet technology in accelerator experiments was applied to an experiment to observe cosmic rays using a measuring instrument mounted on a scientific balloon in Antarctica (BESS). With the incorporation of an ultra-lightweight, materially "transparent magnet" using superconductivity and persistent current technology at a central observation device, the scientific balloon flight and observation experiment orbiting the South Pole over Antarctica became a reality.

"This research project was one of the most fantastic adventures in my life. I was responsible for leading a scientific observation group for the first time in this experiment, and I accomplished this with the cooperation of young and talented researchers and students. Through my role as the project leader in the extreme natural environment, I realised how grateful I was to be supported and how wonderful to support others simultaneously in this experience."

In 2007, Yamamoto was appointed Project Manager of the International Linear Collider (ILC) Global Design Effort. He led the research and development of the superconducting RF accelerating cavity technology, an essential component of a linear accelerator, through international collaboration. He said, "The superconducting RF technology was very different from the superconducting magnets I had worked on before, but we still shared the same goal of providing the 'field.' In our efforts to develop superconducting magnet technology, we took advantage of our experience through international cooperation and collaboration with research institutes and industries. I think that the creation of "fields" such as electric and magnetic fields is destined to be taken for granted and almost forgotten once accelerators start working. They are like air, so to speak. But they are indispensable. It would be a great success if everyone forgot about our work. We can be very proud of this behind-the-scenes role."

To conclude, Prof. Yamamoto expressed his perspective regarding the direction of the science role in the future of Japan.

"With my confidence, Japan shall clearly prioritize to globally lead 'science, technology, and education'. I have been kept deeply impressed with CERN and the founding concept, Science for Peace, which excellently motivates to unite everybody having any background, around the world, to work together on science and technology regardless of their ideologies or beliefs. It has strongly motivated me to my research and international cooperation in this field. CERN is not only fostering to promote fundamental science but also strongly contributing to society through innovation and knowledge transfer. It shall be important for Japan's future direction to pursue establishing an international/global research organization to be hosted in Japan, with a similar concept as CERN. I believe that the ILC project will take a central role to extend the prospect and to realize 'Science for Peace'.

"I would like to extend my sincere thanks to everybody who has trained me and worked together and supported particle physics. I will keep my willingness to assist everyone in the next generation to lead our future in science and contribution to feedback to society."

Original story in Japanese



IMAGE OF THE WEEK

### Behind the scenes

Barbara Warmbein | 18 May 2023



The ATLAS control room at DESY is the setting for the interview with Jenny List.

When a camera crew descends on a research lab, places that scientists see every day can suddenly appear totally different. When WG3 leader Jenny List showed the APS TV team and presenter Nico Gutjahr around the German lab DESY, a control room became the setting for a one-on-one interview and the accelerator module test facility turned into an interactive classroom. Here are some impressions from the video shoot for the latest ILC video. All images: Joseph Piergrossi, DESY



"The ILC would have very similar modules to these..." – the crew also walked through test facilities and labs.

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