

# ILC News Vol. 14

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Ichinoseki Linear Collider Bulletin

English Translation

## First Ichinoseki Science Café for this year



The 'Ichinoseki Science Cafés' are a place for enjoying conversations about science over coffee and snacks with researchers and other specialists. The café-style casual seminars began last year, for people to chat about the nature of

International Linear Collider (ILC) research and elementary particle physics.

### At the Science Café

The first seminar for this fiscal year was held at the Ichinoseki City Library on August 2 and attended by some 20 people of various ages, including elementary, junior high and high school students. It was presented by Ms Yuki Akimoto, Junior Fellow and Illustrator at the University of Tokyo's Graduate School of Science, with a title of 'Fundamental particles and the universe seen through the ILC.'

Ms Akimoto used her own illustrations in slides to explain that ILC experiments were anticipated to lead to discoveries of new particles and reveal more about the nature of the Higgs boson. She told the junior high and high school students in attendance that "if you aim to be a particle physics researcher from now, when the ILC is built you'll be able to work to your fullest," and encouraged them to use their summer vacation to go to open days at research facilities and visit campuses.

Participants listened keenly while enjoying the relaxed atmosphere and asked questions about concepts they were unsure about, furthering their interest in science.

Details on future Science Cafes and how to apply can be seen further down in this edition of ILC News.

## ILC Symposium in Morioka



The Iwate Prefecture ILC Promotion Council, chaired by the head of the Iwate Federation of Commerce and Industry, Mr Kunihisa Yamura, held a seminar in Morioka City on July 2 titled 'Paving the future for Iwate, ILC Symposium in Iwate.'

Some 300 local residents, businessmen and women, and government employees attended the symposium held to convey understanding of and enthusiasm for the ILC to the rest of the nation.

Mr Yamura said at the opening: "the issues facing us as we attempt to make the ILC a reality have been made clear by the panel of experts at MEXT, and the scope of our activities moving forward has become more specific. I feel we are moving towards realization one step at a time."

He then emphasized: "The ILC is a rare chance to create a new Iwate open to the world. It's important first for the people of Iwate and the people of Tohoku to come together as one."

The first part of the symposium was presented by Dr Atsuto Suzuki, President of Iwate Prefectural University and former Director-General of the High Energy Accelerator Research Organization (abbreviated and known as KEK from its name in Japanese), who presented with the title 'Towards realizing the ILC in Japan.'

Dr Suzuki said that if the ILC is realized then "Japan will become a world leader in particle physics for the next 50 to 100 years," and of the period leading up to construction, said he would like local governments promoting the ILC, the ILC office at KEK, and engineers around the world to work closer together as soon as possible. He also stressed the need for organizations in the Tohoku region promoting the ILC to form a united body and move together.

Dr Suzuki also spoke of new collaboration between industry and academia when he said: "If companies and researchers at universities come together, the needs of companies can be matched with the seeds of technology at universities to produce innovation," suggesting the idea of companies creating research laboratories.

A panel discussion titled 'A future world created by advanced science' took place in the second part of the symposium, led by Mr Satoru Yamashita, head of the ILC Strategy Council and Associate Professor at the University of Tokyo's International Center for Elementary Particle Physics. Mr Yamashita prompted panelists Dr Suzuki, President of Iwate Prefectural University, Mr Akira Iwabuchi, President of Iwate University, and Ms Mariko Takahashi, Senior Staff Writer at the Asahi Shimbun newspaper, for discussion on the current state of the ILC project, the significance of accelerator research, and development of human resources.

At the end of the symposium, a resolution calling on the national government to decide in the near future on hosting the ILC in Japan and to promptly further international discussions on participation and cost sharing, was unanimously approved.

## **Yamanome kids show off their ILC shrine at the summer festival**



Residents of the fifth district of Yamanome (near Ichinoseki station) made an ILC-themed portable shrine and carried it through central Ichinoseki on August 9 as part of the Ichinoseki Summer Festival.

The district is making use of a city program in which children promote their local areas, and began their 'Yamanome Kids ILC Design Class' on June 13 with parents and their children attending a seminar about the ILC, followed by a visit to the Oshu Space and Astronomy Museum in neighboring Oshu City.

After learning about the ILC, elementary school kids took part in a poster contest, and 14 posters with international



and space themes were submitted. Local residents then fixed each of them to the portable shrine they had built, and some 20 children carried it through town at the summer festival, promoting the ILC.

Mr Hideki Nasu, head of the fifth district of Yamanome, said: "I thought the ILC might be a difficult theme for the kids, but they learnt about it as we went along, and they answered with some wonderful work," noting the deep feeling in each of the posters. He also expressed his appreciation to those

that took part, saying: "Many residents in Yamanome have been pro-active at each stage. It was great that



everyone came together to take part in activities aimed at realizing the ILC."

The 'Yamanome Kids ILC Design Class' is a program for kids to develop an international perspective via science, and for adult residents as well to learn more about the ILC and support it. They have also built a garden in the shape of the ILC tunnel and put up a sign supporting the ILC.

## News Clippings

### Panel of experts meet to discuss hosting the ILC (fourth meeting)

Date: June 25

Location: Ministry of Education, Culture, Sports, Science and Technology (MEXT)

A panel of experts formed to discuss hosting the ILC (chaired by Shinichi Hirano, Professor Emeritus at Nagoya University) held their fourth meeting and based on consideration to date by the panel and two working groups set up, announced the following points in its summary:

The ILC project requires a huge financial investment and international cost sharing is an absolute must. From the viewpoint that the scientific results obtained should be commensurate with the huge investment, an outlook for the potential discovery of new particles should be made.

A decision based on the results of experiments taking place at the Large Hadron Collider at CERN in Europe through to the end of 2017 is necessary.

It is important to make the overall ILC project clear, and to get the understanding of residents nationwide and scientists in other fields.

Professor Hirano also indicated that the panel would deliver its final report to MEXT at around the end of the 2017 fiscal year.

## General meeting held by the federation of Diet Members for the promotion of the ILC

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Date: June 25

Location: in the National Diet

The non-partisan federation of Diet Members for the Promotion of the ILC (chaired by Mr Takeo Kawamura) held their general meeting and approved a resolution to request the Japanese national government to further deliberations with the U.S. and countries in Europe regarding international cost sharing, one of the key issues in hosting the ILC in Japan. The request includes making clear domestically and internationally the process leading to a final decision by the Japanese national government, starting international discussions on budgets for building and running the ILC as well as human resources, securing budget for resolving technical and cost issues, and joint deliberation by the Federation of Diet Members and national government as a matter of international strategy.

## Iwate Accelerator-Related Industry Research Association established

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Date: June 8

Location: Morioka City

Iwate Prefecture established the Iwate Accelerator-Related Industry Research Association to create a medium for people in industry, academia and government involved in accelerator-related industries to meet and collaborate, and to assist companies in the prefecture with improving their technologies and chances for them to expand their business.

Some 120 people from 54 companies and organizations attended the general meeting held to start the association, where its regulations, appointment of managers and plan for the 2015 fiscal year were approved, and Vice Dean of the Faculty of Engineering at Iwate University, Professor Hiroyuki Fujishiro, was appointed head of the association.

The office for the Association is located in the Iwate Industry Promotion Center, where coordinators will encourage companies in Iwate to enter the accelerator-related industry and support them.

## Mayor Katsube presents on the ILC at Iwashizumi Elementary

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Date: July 1

Location: Iwashimizu Elementary School

Mayor Osamu Katsube gave an ILC talk to 26 students in the fourth, fifth and sixth grades at Iwashimizu Elementary School, talking about elementary particles and the lifestyle at the European Organization for Nuclear Research (CERN) in Switzerland. The children later sent a letter to the mayor expressing their hopes and dreams. One child wrote: "I didn't really understand in the beginning, but after listening

more, I could. I want to get a job involved with the ILC in the future," and another child wrote: "It was a hard topic but you taught us so we could understand. When I grow up I also want to be involved in the research."

## Meeting held to explain ground surveys to nearby residents

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Date: July 18

Location: Okita Civic Center

Personnel from Tohoku University and Iwate Prefecture spoke at a meeting attended by some 30 residents of the Daito area of Ichinoseki City, regarding the ground surveys to be carried out in the area to collect data necessary for construction of ILC facilities. Four kinds of surveys are being carried out: seismic prospecting, electromagnetic prospecting, surface inspections, and boring surveys. The seismic and electromagnetic prospecting were carried out in August, the surface inspections were conducted in September, and the boring surveys began in September and are scheduled to finish in December.

## Junior high students go on science study tour

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Date: August 5-7

Location: Tsukuba City, Ibaraki Prefecture

Junior high school students went on a study trip to the High Energy Accelerator Research Organization (KEK) in Tsukuba City of Ibaraki Prefecture, and other locations, to learn about state-of-the-art science.

Held annually by the city's Board of Education since 2011, the trip aims to have students learn more about science and technology by visiting advanced science facilities and listening to talks by scientists and researchers.

This year, 62 third-grade students from 19 junior high schools in Ichinoseki City and the adjacent Town of Hiraizumi took part in the trip, and we will hear from a couple of the students about what they learned and felt in the next issue of ILC News.



## Ichinoseki Lives Cosmopolitan

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While working on making the ILC a reality, Ichinoseki is working on making itself a more international city. Here, we introduce international residents active in Ichinoseki. This time it's Kevin Thompson, from Seattle in the U.S., who has lived in Fujisawa since 2011.

**Q: What are your interests?**

A: I like cooking, karaoke and hot springs. I'm also interested in science, especially things about space.

**Q: What do you like about Ichinoseki?**

A: I like that Ichinoseki has a long history of international relations. I've met and become friends with people from Australia and Vietnam for example, thanks to the city's international exchange.

**Q: Is there anything you are proud of about English education in Ichinoseki?**

A: I think it's great that more students from Ichinoseki are participating in speech contests every year. They are raising the image of English education in Ichinoseki by progressing to the Tohoku and national levels.

**Q: Lastly, a word on making the ILC a reality.**

A: I think the ILC is important for the recovery of Tohoku after 3/11, and to vitalize local economies. If the ILC is built in the Kitakami Highlands, I believe Ichinoseki will become a science and industrial center.