

THE KITAKAMI TIMES

Iwate, the International Linear Collider, and You

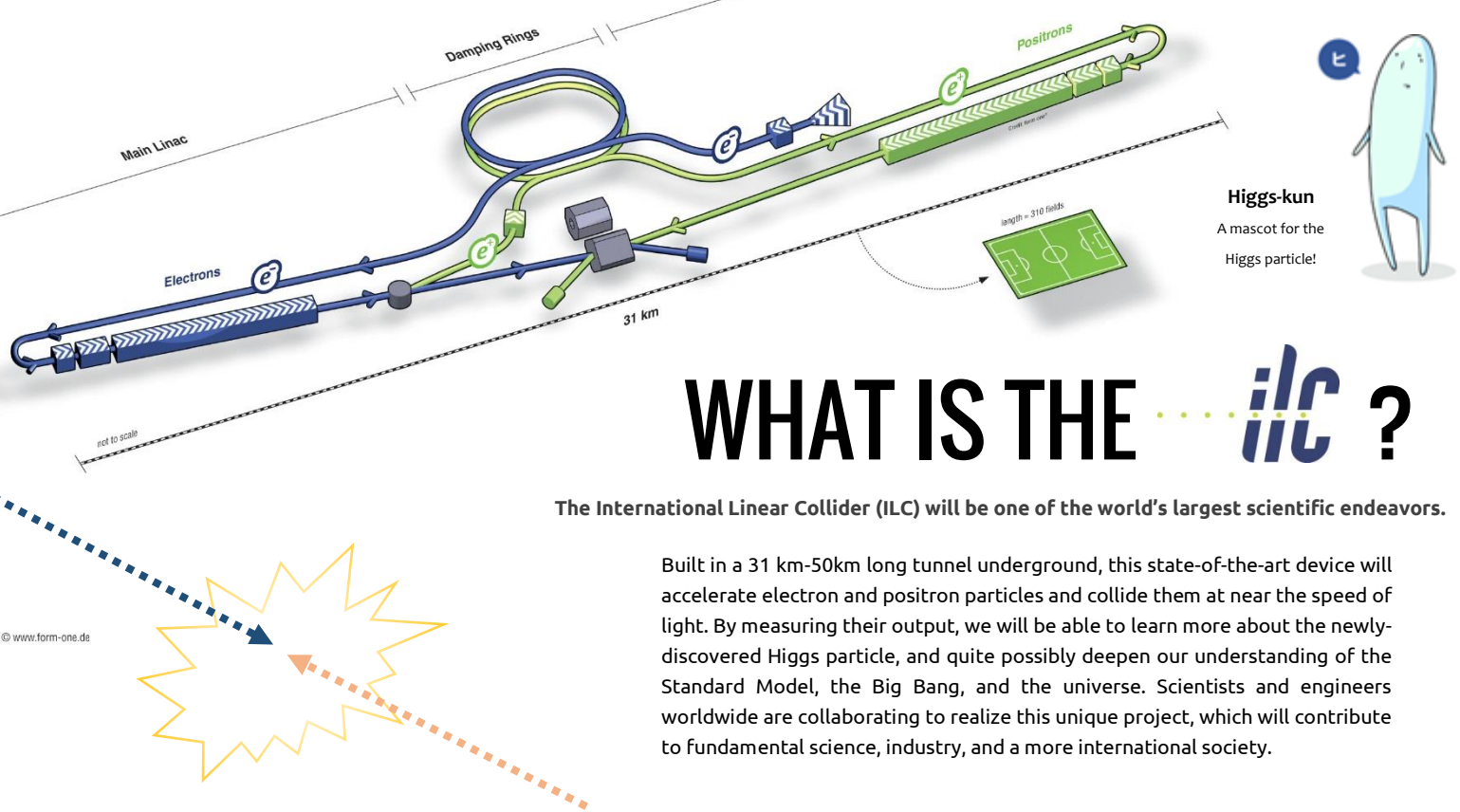


In this issue...

The ILC descends on Europe

The Tohoku ILC Promotion Council, Iwate Government, and AAA visit CERN and the IEEE NSS/MIC conference in France

Higgs-kun and Sobacchi
pose in front of CERN's
Globe of Science and
Innovation



WHAT IS THE ?

The International Linear Collider (ILC) will be one of the world's largest scientific endeavors.

Built in a 31 km-50km long tunnel underground, this state-of-the-art device will accelerate electron and positron particles and collide them at near the speed of light. By measuring their output, we will be able to learn more about the newly-discovered Higgs particle, and quite possibly deepen our understanding of the Standard Model, the Big Bang, and the universe. Scientists and engineers worldwide are collaborating to realize this unique project, which will contribute to fundamental science, industry, and a more international society.

THE JAPANESE CANDIDATE SITE

TOHOKU, NORTHERN JAPAN



Iwate Prefecture

A large prefecture in northern Japan, Iwate is home to the Kitakami candidate site for the ILC.



Oshu City

The ILC's northern end will lie in Oshu, which is also home to the Mizusawa National Astronomical Observatory.



Miyagi Prefecture

Directly south of Iwate, Miyagi holds both Kesennuma and Sendai cities in its borders.



Morioka City

The capital city of Iwate, and the host of the Linear Collider Workshop 2016.



Ichinoseki City

The ILC will pass through Ichinoseki City, one of the largest cities in Iwate.



Kesennuma City

The southern tip of the ILC will lie in Kesennuma City. The city is hard at work rebuilding from the 2011 earthquake and tsunami.



Sendai City

Home to Tohoku University, Sendai is the urban center of the entire Tohoku region.

THE KITAKAMI MOUNTAINS ILC CANDIDATE SITE

The Kitakami mountains are a range of gentle, rolling mountains in Iwate and Miyagi with a thick granite bedrock – perfect conditions for an underground particle accelerator.

FOR THE FUTURE

If the ILC becomes a reality, about 3,000 researchers will come with their families to live in the area. An international hub of knowledge will be formed in our backyard, with leading edge research that will inspire new industries: medicine, IT, biotechnology, and many more. The ILC will be a great beacon of hope to the people of Tohoku, Japan, and the rest of the world. The entire region is joining together to make it a reality.

LEARN MORE

Search

International Linear Collider

Dr. Atsuto Suzuki, Sobacchi, and the rest of the staff at the Tohoku ILC Promotion Council booth



IWATE PREFECTURE

Bon Voyage, Sobacchi!

By Amanda Wayama

There we were: surrounded by scientists from around the world as they studied our booth. What, exactly, was a PR booth for the Tohoku region doing at the IEEE NSS/MIC Conference about radiological technology? And in Strasbourg, France, of all places?

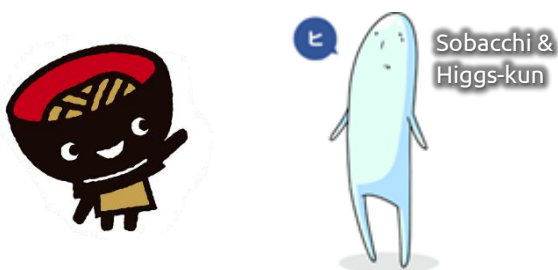
And just what, exactly, is “Sobacchi?”

The IEEE Nuclear Sciences Symposium and Medical Imaging Conference happens once a year and gathers physicists, medical specialists, and researchers from numerous fields for cross-discipline exchange and presentations. For the NSS portion, former KEK Director-General and current Iwate Prefectural University President Atsuto Suzuki gave a presentation at the opening plenary on Japan’s involvement with international research, in particular the ILC. For many in attendance, this was their first time hearing of the project. Sensing a prime opportunity to publicize the Tohoku area, the Tohoku ILC Promotion Council teamed up with the Iwate Prefectural Government to set up a booth in their exhibition space.

“What,” pointed guests to the booth, “is that?”

The first thing most people noticed was Sobacchi...the mascot of Iwate Prefecture. Our little plush toy joined a foam Higgs-kun in being the belles of the ball, as there truly is a mascot for everything in Japan. As many of you know, Higgs-kun was created by the good folks at KEK to represent the Higgs boson. Sobacchi, and his four brothers, represent Iwate and its various regions as the Wanko Brothers: that’s right, five little anthropomorphic cup-kids! (Wanko means cup in Iwate dialect.)

It wasn’t just Sobacchi that proved to be a selling point. The Tohoku ILC Promotion Council had a number of films specially produced to showcase both Tohoku and our commitment to the ILC project. There were large maps and information on Tohoku companies involved in the accelerator industry. And we had 5 intrepid guides to take people on a virtual tour of the region. Luckily, our visitors were already quite knowledgeable about Japan. “You will have sold me on Tohoku as soon as you tell me what Ghibli movies are set there,” said one of my favorite visitors to the booth. (As it so happens the [prologue of Princess Mononoke](#) and the whole of [Spirited Away](#) are influenced by various regions in Tohoku).



COMMON QUESTIONS AT THE CONFERENCE

What's the schedule for the ILC? Is it still being planned? Is it decided to be built?

The international scientific community wants to build it in the Kitakami site, and we in the local area welcome the project. However, the Japanese national government (in particular, MEXT) is currently deliberating on the project, with a decision to be made by 2018.

How come you're building it in such an earthquake-prone area?

It's a valid question – if people know of Tohoku at all, it's because of the Great East Japan Earthquake and Tsunami. Have no fear: the granite bedrock of the Kitakami candidate site is extremely stable, and the ILC will be safe from earthquakes in its tunnel underground. For reference, there is already an earth tides measurement station in another tunnel in the mountains. The 2011 earthquake, a massive 9.0 magnitude event, caused absolutely no damage or effect to the measurement devices.

This wasn't just a trip to sell Tohoku to Europe. We also visited CERN in Geneva to tour the international science facility thanks to our wonderful guide, Akira Yamamoto, Asian Director for the ILC). You could just imagine how a similar facility might be built in the Kitakami mountains of Iwate.

Of course, both Geneva and Strasbourg have been international cities for decades, but even so, I saw that we would just need more if we wanted to be ready for the ILC. More multilingual signs, more English-speaking staff, more staff knowledgeable in visas and government paperwork. Better transportation – the trams and trains were amazingly efficient and numerous. And the cafeteria at CERN! It had gluten-free products.

It was all great to see and report back to the rest of our staff here. This is the level of service that people will expect from the ILC facility, and we in Iwate are excited to take on the challenge.

Another thing: One of our members had never actually been abroad before, but he became the most international out of all of us. At IEEE, he was the one who ran around to people walking the fair, and led them to our booth. He showed you don't need to have worked abroad or live a cosmopolitan life in a big city to relate to people from around the world. In fact, I think he showed the spirit of Iwate and Tohoku the most out of any of us. So while we need more language resources in general, we can never forget that the best ambassadors of the area are the people who were born and raised here.

Thanks to Sobacchi, we made quite a few new fans of Tohoku and Iwate, as well as learned some new things that may help Iwate in the future.



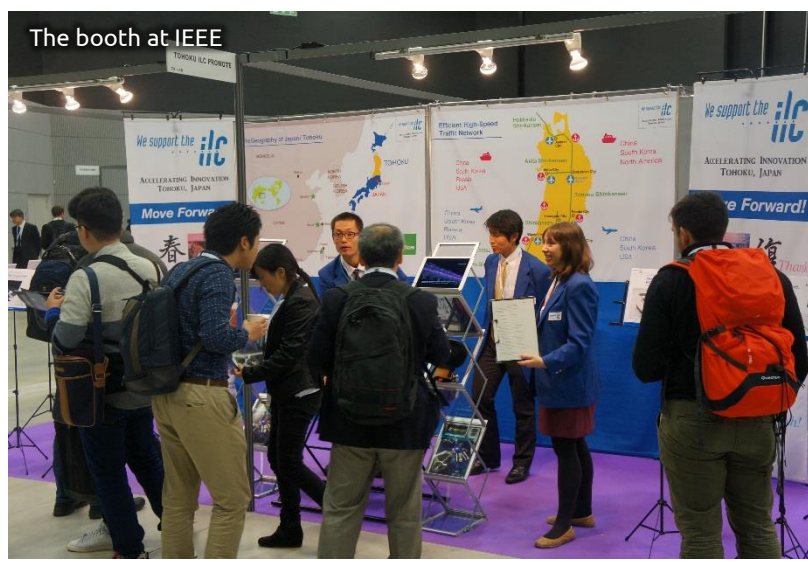
A mural of the ATLAS detector at CERN



Inside a mock module



Meeting Sobacchi



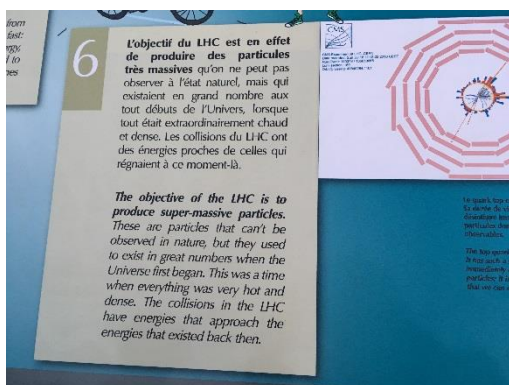
The booth at IEEE

Life in Geneva, Strasbourg, Iwate

How would life be different, if you lived in Iwate? For me, a first-timer to Europe, I was intrigued by the differences found in life in France! Here's some of the things I noticed – how about you?

TRAINS AND BUSES

No ticket gates! You buy your ticket beforehand and get it time stamped. Then a train attendant will be around shortly to check it. In Japan, you always need a ticket to get through the electronic gates, and you never need to show it on the train.



MORNING MARKETS

Even if the products are different, morning markets happen no matter where you go! (Below) Ferney-Voltaire market in France near Geneva, (Right) Mikoda market in Morioka City, Iwate Prefecture



MULTILINGUAL SIGNS

English almost always accompanies French/German/Alsatian on the signs. Even without English, it was easy enough to guess the meaning of things.



ALSACE & IWATE - MORE ALIKE THAN YOU THINK?

These two cultures are more alike than they seem at first. Both have traditional houses that were home to both people and horses. The painted furniture reminded me of Iwate lacquerware. And both are quite agricultural.



WORLD HERITAGE

Left, Strasbourg Cathedral. Right, Motsu-ji Temple at World Heritage Hiraizumi, Iwate.





ICHINOSEKI CITY

The father of modern science in Japan, and the future with the ILC

By Nathan Hill

Kids and international residents in Ichinoseki are performing a play in English (and a few lines in Dutch!) about a man known as “the father of modern science in Japan.” Otsuki Gentaku was born in Ichinoseki in 1757, in a period when Japan had policies which strictly limited contact with the rest of the world, and trade was limited to that with just Holland and China. A small island in southern Japan was the only place where exchange was allowed, through which books and items from Holland facilitated the study of science from Europe. This field of study is called ‘rangaku’ in Japanese, and Gentaku greatly contributed to the field.

The play, titled “Otsuki Gentaku – opening the door to modern science in Japan,” begins in Ichinoseki where a young Gentaku is studying hard, and his desire to help people via medicine and knowledge grows stronger. He sets foot in Tokyo (then known as Edo), where he

studies medicine, Western knowledge and the Dutch language. Six years later he travels down to Dejima in Nagasaki, where he meets with the Dutch at the trading post, and then returns to Edo where he works as a doctor, starts his own school, and translates various works into Japanese, spending his life opening the door to knowledge which would modernize Japan. The first four acts of the play depict this journey, while the fifth and final act is set in Ichinoseki in the 2030s, with the International Linear Collider built and running. Here, medical treatment using accelerator technology comes into play for a pair of researchers from abroad.

It is the second year for the Yamanome Civic Center in central Ichinoseki to organize a play performed by kids in English, as part of efforts to have children learn about and promote their city, and to provide more opportunities for international exchange. This year the



Teaching cricket to the kids

project aims to achieve this through the English play, sports, and learning about the ILC. 16 elementary school students, two junior high school students and one high school student are taking part, as well as four Assistant Language Teachers (teachers of English at schools in Ichinoseki) and myself.

The project began in May with a bus trip to an international festival run by the Foreign Student Association at Tohoku University in Sendai. After indulging in a range of food from various countries, we went to the Sendai Science Museum, and had a good time playing with the various learning tools, which included learning about elements, particles, solar power and so on.

In June, the kids had a chance to play cricket, a popular sport in many Commonwealth countries around the world. Australian, Indian and Pakistani members of the Tohoku Cricket Association came up to Ichinoseki to introduce cricket to the kids, who learned the differences between cricket and baseball (a popular sport in Japan), and took little time to get the hang of it.

In July, we made a trip to the Ichinoseki City Museum to learn more about the protagonist of the play, Otsuki Gentaku. The kids also learnt about the ILC, and played with ILC cards made by the High Energy Accelerator Research Organization (KEK).

By August, the script had been completed and I had translated it into English, bearing in mind that kids would be performing the lines, and so made it simpler in places but without losing much of the original meaning. There are also a number of lines in Dutch, which I asked Ms. Barbara Warmbein of DESY in Germany to translate from English to Dutch. Ms. Warmbein had come to Ichinoseki in April last year to see the ILC candidate site, along with PR staff from other particle physics institutes around the world.

In September, we started rehearsing the play, holding sessions every Saturday. We incorporated some fun activities for the kids who were trying hard, and on one Saturday we tried "Sports Fukiya," which was a demonstration sport at this year's National Sports Festival held in Iwate Prefecture. Sports Fukiya uses a blowpipe to shoot plastic darts at targets - it was a lot of fun and I felt like a ninja.

The first performance of the play was in October, and the kids did really well. I found memorizing my lines in Dutch to be difficult, not to mention pronunciation, and realized how hard the kids had worked with their lines in



Playing with science in Sendai



Ninja blowpipe!

English. Below are comments from a handful of people involved in the play.

Mr. Kei Yokoyama, staff at the Yamanome Civic Center and project planner, said: "This is a project in which Japanese and international residents put their ideas together. I hope the kids have felt how international exchange is fun."

Ms. Ayano Ninomiya, the play's scriptwriter and director, said: "I learnt many things about Ichinoseki, globalization and the ILC while writing this play about the man Otsuki Gentaku. I'll be happy if the kids have too while taking part."

Ms. Mikiko Soma, deputy head of the Ichinoseki City Museum, said: "Otsuki Gentaku pursued the latest in science some 200 years ago, and this has been connected with the ILC, which is state-of-the-art science today. The kids perform with a spark in their eyes, and I imagine Gentaku had the same look when he was a child. It's a wonderful play which covers the past and makes you feel the future."

Momoka Yoshida, one of the junior high school students

who performs the narration and whose younger sister is also part of the play, said: "The atmosphere is good and everyone looks forward to rehearsals, where we are able to chat with the international residents and they teach us pronunciation. I want to be proactive in other projects too, and continue promoting Ichinoseki to the world."

Nigel Church, from the U.S. and who with his wife play the role of the husband and wife in Act Five that have moved to Ichinoseki in the 2030s to work at the ILC, said: "It's been a good opportunity for us to learn about this part of Ichinoseki's history, and for students to learn about other cultures. I am proud of the students, who are working very hard, and I'd like to see more opportunities for them to use English in a fun and useful way."

VIEW THE PLAY - YAMANOME CIVIC CENTER'S YOUTUBE

<https://www.youtube.com/channel/UCUSja606wdr5heBsZEqiH-A>

READ THE SCRIPT

http://www.city.ichinoseki.iwate.jp/ilc/imagen/file/1478496161_01.pdf



ILC SUPPORT COMMITTEE

LCWS 2016: Exploring Southern Iwate

By Dean Ruetzler



Motsu-ji Temple at Hiraizumi

The Linear Collider Workshop (LCWS) 2016 is coming to Morioka, Iwate, Japan during the first full week of December 2016. Hundreds of physicists, researchers, government representatives, public relations specialists, and many others will descend to a city of 310,000 that is relatively close to where the candidate site for the ILC. The conference, its workshops, and some friendly networking will occupy plenty of the participant's time during their stay.

Still, one can assume that many of the conference goers will take in some sightseeing and tourism in Iwate, one of Japan's largest prefectures. Many participants will be happy staying in Morioka proper, but should you desire to venture a bit further, I can offer two suggestions close to the proposed site in Southern of Iwate that would be of definite interest.

HIRAIZUMI: PILLAR OF CULTURE

All right folks, please cue the Strauss music from 2001: A Space Odyssey for this introduction -to the beginning of the movie where "Also Spake Zarathustra" with its

tympanic rolls, and solo trumpet blares, introduces Paleolithic proto-humanoids and evokes imagery of rising suns, early tools, mankind's drive to develop, and the monolith that is the driving force of the movie.

Like that monolith that towered over the epoch-making film, Hiraizumi towers over the south of Iwate both physically and metaphorically. Physically, Hiraizumi is a collection of temples, and other buildings and artifacts, set on and around a large hill on the plain that runs from Kitakami to Ichinoseki, seemingly woven into the fabric of the space it occupies. It is also metaphorically woven into a high spot of the culture of Southern Iwate. So much so, that as of 2011 it was placed on the UNESCO list of World Heritage Sites.

Cultural designation or not, there are few collections of ancient buildings north of Tokyo that are as numerous and elaborate as those found at Hiraizumi, some dating back to the twelfth century. Of course the prefecture of Iwate heavily promotes and supports it which has helped with developing a strong surrounding infrastructure and backing tourist-oriented industry connected to Hiraizumi, especially since receiving the



The Pure Land Garden at Motsu-ji Temple

UNESCO Heritage appellation, officially known as “Hiraizumi-Temples, Gardens, and Archaeological Sites Representing the Buddhist Pure Land”. In its 12th century heyday Hiraizumi was the capital of much of the Northern portion of Japan’s main island Honshu, and was considered every bit the equal of Kyoto.

It should go without saying that, Hiraizumi is quite an eye catcher. Even to the locals, who you think might be accustomed to it somewhat, the gold-leafed walls of Konjikido are stunningly beautiful. The main hall at the Chuson-ji Temple complex is part of national TV networks coverage of the first pilgrimage of the New Year attracting lines of worshipers - think of it as the local Times Square over the New Year with strong cultural and religious importance attached.

Hiraizumi is usually one of the first places foreigners new to Iwate are taken to. The sight of Konjikido, when Japan was still a fresh and exotic place on a warm summer day is still etched in my mind like it was yesterday, not eighteen years ago. As the years go by the visits for various reasons pile up, and almost unconsciously, I can really fathom the large place it holds in Iwate life, culturally, economically, and in many other ways its presence looms large.

To the visitor to Iwate who wants to experience uniquely “Japanese” culture, and may have just a day to do it in, it is a no brainer obvious choice. A half-day or a day visiting Hiraizumi will be well spent, I heartily recommend it.



An Aside (of beef) (...and a Delicious One at That)

A visit to Hiraizumi will put you right next to the Maesawa district of Oshu City. The district is most famous for Maesawa Beef, which is my vote for best in the region, though it might not be quite as widely known as Kobe Beef. It does have a great reputation throughout the country, and receives prizes at repeated taste competitions of various sorts. For the tourist who is in the area for just a limited time, and growing peck-ish, how about making your one meal in the area Maesawa beef at one of the numerous establishments that offer it?

GETO SKI AREA: SNOW... AND EVEN MORE SNOW AWAITS YOU

Moving on from the ancient and traditional Japan, I will now point you in the other direction. Technology-driven, and ultra-modern, complete with all the trappings of modern life.

One of Japan's biggest secrets is its cold winters. For all its stereotypical image of crowded cities, skyscrapers, high-tech goods and world class shopping and all ...the snow comes with them. Tons of the white flaky stuff falls all over just about anything north of Tokyo, and to the winter sports enthusiast, it is manna from heaven, or at least powder from Siberia. Many observers will tell you that it is some of the best snow in the world, and that the best skiing by far in Asia is in the Tohoku Region of Japan as well as Hokkaido, the northernmost island.

Perched near the hump of a lengthy ridge of the Ou Mountains in Southern Iwate, just outside of Kitakami is Geto Ski Area. Geto can lay claim to being the ski area that gets the deepest snowfall of any ski area on the main island most years, and it will collect 450 to 600 centimeters of light, flaky, powder snow that skiers and snowboarders will relish under their skis and boards. This winter it is scheduled to open on December 3rd, and close in mid-May. I do not recall a winter when Geto

was not open before just about any other resort in the Region. There is no reason to assume it won't meet this year's target date to open and have a considerable amount of luxurious powder snow.

Geto is a medium—sized ski area with two gondolas, a high speed quad lift and two double chairs, a decent amount of beginner to expert terrain in addition to wooded areas that are patrolled in acknowledgement of the powder enthusiasts that will ski off-piste, and a reputation for the best night skiing in Iwate. The night skiing reputation comes from running their main gondola until the resort closes instead of letting customers freeze on chairlifts as the face the cold windy night on the slopes.

In addition the ski consumer will also receive ample accoutrements inside the ski area's modern base lodge facility. The base lodge, with a long in door escalator taking skiers from the base/parking lot level to the lodge/lift level, a main meeting/ticketing area with slightly diagonal walls that remind me of the space station promenade from the Star Trek: Deep Space Nine television series, and a spacious cafeteria with large windows to gaze at the slopes with, and a food selection ranging from contemporary Japanese to Indian gives the ski consumer quite a bit of value for a moderate price. Geto becomes an even bigger bargain in dollar terms when it is compared to North American and European ski resorts.

Epitravelogue

I have given conference-goers only two choices, on the assumption that it is a short-term trip. One choice is for those seeking Japanese traditional culture and historical offerings and one is for the rugged, active, and hearty outdoor enthusiast. These two choices are just the tip of what the Tohoku iceberg offers, but with limited time to venture, they are South Iwate's best.

International Workshop on Future Linear Colliders

LCWS2016

5-9 DECEMBER , 2016

Aiina Center & MALIOS ,
MORIOKA CITY , IWATE , JAPAN

The workshop will be devoted to the study of the physics cases for future high energy linear electron positron colliders, taking into account the recent results from LHC, and to review the progress in the detector and accelerator design for both the ILC and CLIC projects.

LCWS 2016 in Morioka, Iwate!

CLICK THESE BUTTONS TO LEARN MORE



tours of iwate



← Registration open!

A tour of an Iwate sake brewery and craft workshops will be held on 12/10. Also open to foreign residents.

for lcws 2016



LCWS 2016 Homepage

<http://lcws2016.sgk.iwate-u.ac.jp/Welcome.html>

IN THE NEWS

October 20th

Learning ILC Technology from Researchers: Study Session in Kitakami

Iwate Nippo: On October 19th, the Iwate Accelerator-Related Industry Research Society held its second ILC technology seminar in Kitakami City to prepare for the ILC being built in the Kitakami mountains. Participants deepened their understanding of the necessary technology for the ILC through talks given by researchers from KEK in Tsukuba City, Ibaraki Prefecture. About 100 people including members of the research society participated.

October 21st

India and Japan to Strengthen Accelerator Research Relationship: KEK and Banaras Hindu University

Iwate Nippo: KEK (Tsukuba City, Ibaraki Prefecture) and Banaras Hindu University in India are moving forward with a plan to enhance joint elementary particle experiment and accelerator-related research. The two plan to sign a memorandum on joint research within the year. This effort to internationally strengthen science and technology cooperation on the researcher level is receiving attention as a possible boost for building the International Linear Collider in Tohoku.

November 4th

Emphasizing the Importance of Japan-Europe Cooperation for the ILC (Diet Member Shina, others Talk at IEEE NSS/MIC)

Tanko Nichinichi: A lecture was held about the ILC at IEEE NSS/MIC 2016, an international conference on radiation technology held in Strasbourg, northern France. Speakers included diet Member Takeshi Shina of the ILC diet member federation and Iwate Prefectural University President Atsuto Suzuki. The speakers asked European involved in science and technology to help form a cooperative framework for the ILC. A PR booth for the ILC by Tohoku ILC Promotion Council was also at the conference venue.

November 7th

Learning about the Universe, the World: ILC Guest Talks in Iwate

Iwate Nippo: Guest talks by Professor Takehiko Saito of JGU in Mainz, Germany (Nuclear Physics) about the International Linear Collider (hosted by Iwate ILC Promotion Council and Save Iwate) started on November 6th, with the first class held in the Morioka Reconstruction Support Center in Morioka City. He will give cutting-edge guest classes for elementary and middle schools in Iwate until the 13th.

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THE KITAKAMI TIMES : Issue #25

Produced by the Iwate Prefectural Government and the Iwate Prefecture ILC Promotion Council

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Find THE KITAKAMI TIMES, news article translations, and more online at <http://www.iwate-ilc.jp/eng>
Our next issue is planned for December. Please let us know if you have any comments or suggestions!