

# Final Summary & Vision

Hitoshi Yamamoto  
Nov 1, 2019  
LCWS2019 in Sendai

Over 400 registrants: the largest ever for linear collider workshops held in Japan





# Addresses by dignitaries:

## (Plenaries)

Ryu Shionoya, Director General of Federation of Diet Members for ILC

Hideo Ono, President of Tohoku University

Yoshihiro Murai, Governor of Miyagi Prefecture

## (Reception)

Kazuko Kori, Mayor of Sendai

## (Banquet)

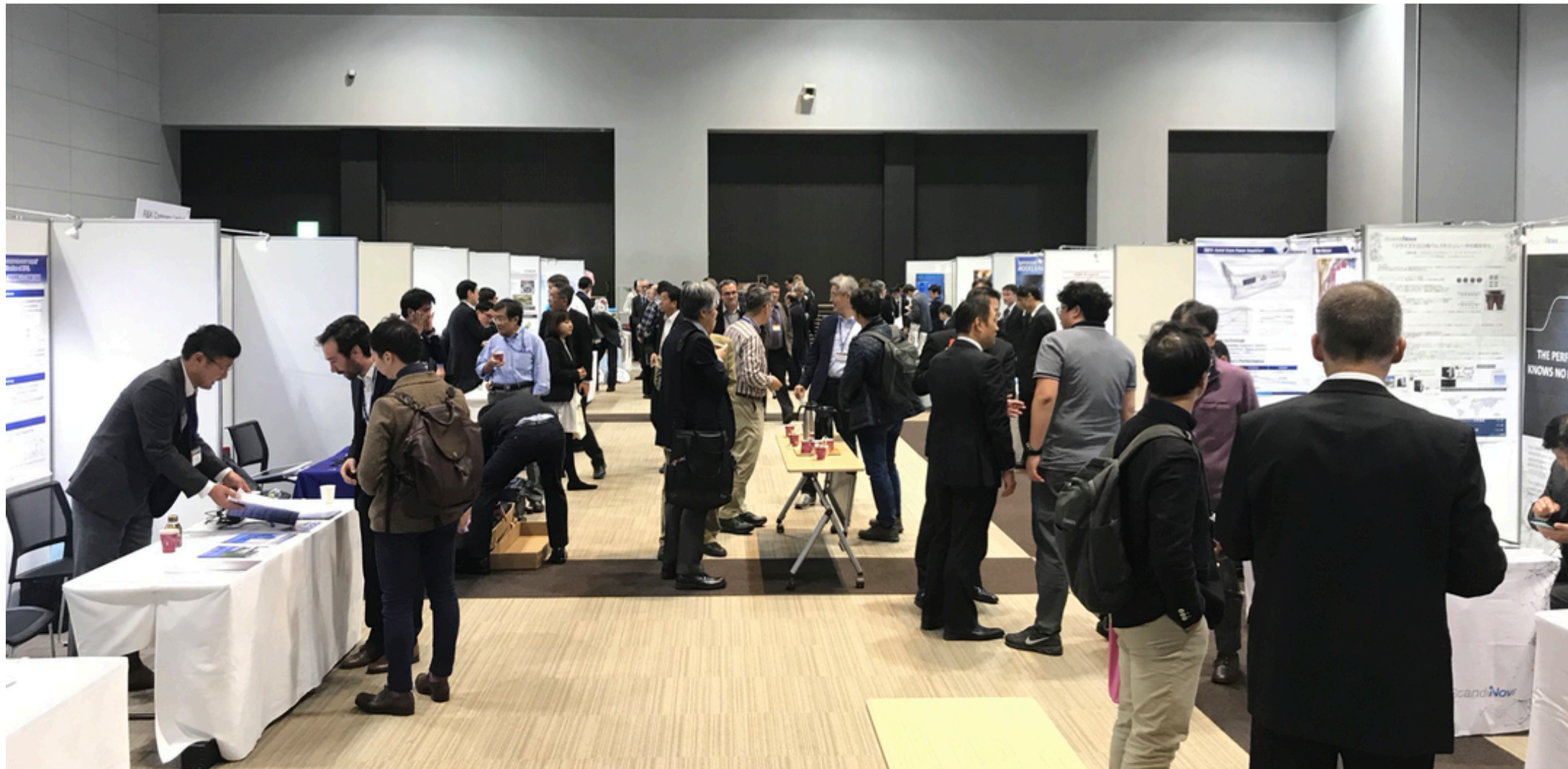
Takuya Tasso, Governor of Iwate Prefecture

and many more



# Strong Participation by Industry:

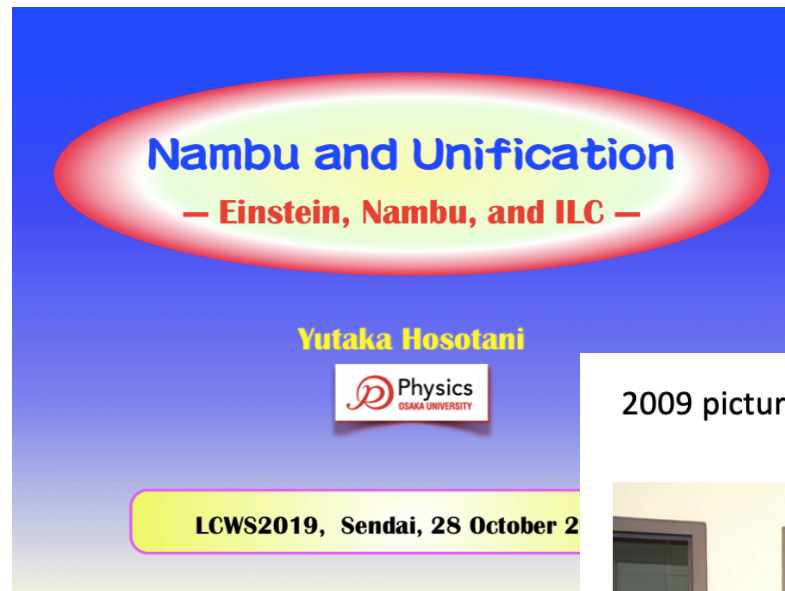
Industry exhibition (Monday , Tuesday) 57 booths  
Industry session (Wednesday almost all day)





# Nambu Session

Higgs particle is a Nambu particle!  
2020 is 100<sup>th</sup> anniversary of Nambu's birth.



Yoichiro Nambu  
exploring  
Spontaneous Symmetry  
Breaking



M. E. Peskin  
LCWS2019  
October, 2019

2009 picture when I visited Nambu in Chicago



# Outreach Event

## Thursday, Oct 31

Researchers attending LCWS2019 interacted with junior-high school and high-school students.



# Progresses since LCWS2018(1)

(Taken from Hon. Shionoya's address)

On March 7th, the MEXT Director-General presented two action items:

- 1) establish an ILC discussion group with Europe, similar to the US-Japan discussion group.

Germany: created and started, France: in preparation

- 2) create an international working group at KEK for preparing the basic plan for international resource sharing.

Report released - basis of serious discussion with other countries

# Progresses since LCWS2018 (2)

(Taken from Hon. Shionoya's address)

Two processes to watch:

- 1) the Master Plan process of the Science Council of Japan is ongoing
- 2) the discussions for the update of the European Strategy for Particle Physics are ongoing

What is happening within Japanese government and legislative body:

In parallel with the administrative process by the government, we, as politicians in the legislative branch, will make actions in earnest toward implementing the preparatory budget and discussing the financial resources for the construction.



# Statement toward the realization of the ILC: 'Sendai Statement'

Nov 1, 2019

Scientists from many countries and regions are now gathered at the International Workshop on Future Linear Colliders (LCWS2019) in Sendai, Japan. Together with colleagues from around the world we hereby issue the 'Sendai Statement':

## **We reaffirm the importance of ILC construction.**

In statements at previous LCWS meetings we have called for the construction of a Higgs Boson Factory as the essential next step towards understanding the Universe. This proposal has become even more compelling in light of the most recent results from the CERN Large Hadron Collider. In March 2019 the International Committee on Future Accelerators confirmed this as the international consensus for the next global project.

## **The ILC design is mature and ready for implementation.**

The key superconducting acceleration technology has been successfully demonstrated in the European X-ray Free Electron Laser (XFEL) in Germany and prototypes have also been developed in Japan, China and the USA. Consequently, the cost estimate is on a sound technical basis. The critical technology required for achieving its design performance has been developed and demonstrated at the KEK Accelerator Test Facility. The ILC design allows the flexibility for it to be upgraded in the future to reach even higher energy and luminosity. The long, productive research program of the initial phase can be extended by exercising this flexibility.



## **We have strong support from the local community.**

The Japanese Government's continuing interest in the ILC within MEXT and related ministries and agencies expressed at the ICFA/LCB meeting in March 2019 is highly appreciated as its first official statement.

Researchers around the world are also very grateful for the strong and continuous support provided by Japanese Diet members. In addition, through the entire period of this workshop, we have felt the strong support and enthusiasm for the realization of ILC from the Japanese community, particularly in the Tohoku area, as well as Japanese industry.

## **We are committed to making the ILC a success.**

Given the ILC's scientific importance, its technical maturity, and the strong support for realizing it in Japan, we, the international community Participating in LCWS2019 in Sendai, as well as our colleagues around the world working on ILC, reaffirm our commitment to engage in the construction and scientific exploitation of the ILC as a global project.

Scientists attending LCWS2019  
on behalf of the global Linear Collider Collaboration