

It's ladies' night

Today's issue features a story from Junpei Fujimoto, a particle simulation specialist at KEK, who is very active in ILC outreach in Japan.

In Japan, several attempts are being made to bring accelerator science, such as the open house at KEK, a summer school for high school students, lectures in high schools and middle schools, science cafés, and so on. Among them, there is also the "Accelerator's Night" series at a bar ([read more](#)). The latest one was held on 14 April and called "Accelerator Ladies' Night", produced by members of the ILC fan-club in a bar in Tokyo near Shin-Okubo station, an area famous for its Korean-style barbecue restaurants.

The "Accelerator ladies" tentatively formed for this event with Fukuko Yuasa from KEK, Miho Nishiyama from Shinshu University, and Rika Takahashi, ILC communicator for Asia. Yuasa is a physicist and a member of GRACE team, which is a computer program to generate Feynman diagrams and calculate the cross sections of the particle processes in the Large Hadron Collider or the International Linear Collider. She is also responsible for the network security of KEK. Nishiyama is in a doctoral course of Shinshu University and studying R&D for the calorimeter for ILD, one of the possible detectors for the ILC. Takahashi is the ILC communicator for Asia and one of the writers and editors of this newsletter.



Takahashi and Yuasa with the moderators Kaida and Kojima during the Accelerator's Ladies' Night.

The "ILC fan club" was recently formed on the web by two women, Etsuko Iwasaki and Sino Kojima, aiming to support the ILC project in Japan. They are participants of a field trip club, and learnt about the ILC when they came to KEK on a field trip. They are fascinated by the science ILC is aiming to discover. "I have been a big fan of science-fiction novels and movies. I am expecting the ILC to make the sci-fi world come true," said Iwasaki. The number of club members now counts around 60. This event became the first official activity of this fan club. The hostess of the event was also a woman: Aya Kaida, a novelist, who is famous for her deep knowledge of the Japanese "otaku" culture of anime and mangas. She has hosted 'Accelerator's Nights' many times before. "I think we will talk about more about physicists than accelerators themselves," she said at the beginning of the event.

One of the main topics was the gender-equal society. At KEK, the number of women scientists is only 5%, which is low compared with European institutes. Yuasa talked about the daily life of woman physicist. Her husband is also a physicist of KEK. "My husband and I live like cooperative researchers at home. We usually have a lunch meeting at the cafeteria, planning what to do for the day. We share our housework, for example, I cook, and he does the dishes". This may not sound so special; however, sharing the housework is still not so common in Japan. "Well, he uses a dishwasher, but he seems to have a strategic and well organised way to store dishes in it with the mind of a physicist," she said.

Another theme of this "talk show" was what young women physicists are doing for the ILC. Nishiyama explained a beam experiment to study the performance of the calorimeter at the Fuji experimental hole in KEK. Of course she had to explain what a calorimeter is first. Kaida told the audience to imagine a flying potato in the central tracker. At the boundary between the tracker and the calorimeter, there exists a fine mesh to make mashed potatoes. The calorimeter located behind the mesh will re-collect the very finely mashed potato as much as possible and reconstruct the original mass. This is the principle of the calorimeter that measures the energy of particles. According to this association, Nishiyama had tested several "patterns of the mesh" and would like to determine the best design.

Kaida is always a good interpreter of complicated concepts to offer to the audience. For example, when physicists discussed Super-Kamiokande physics of solar neutrinos and also K2K experiments, she immediately interpreted the neutrinos from the Sun as 'wild fishes' and the ones from KEK to Super-K as 'cultivated fishes'. You know that Japan has a long culture of eating fish, thus Japanese are quite sensitive for 'wild' or 'cultivated'

The last theme was the cultural difference between institutes. Takahashi said that she was astonished to find when she came to KEK that the researchers are so free from the structure of the organisation compared with her former employer. It is both good and bad. Researchers should be free from any authority. This is a tradition of physicists. On the other hand, in order to accomplish a big project, coherency is important within the organisation.

The audience enjoyed listening to several other small episodes on accelerator science and behind-the-scenes not usually told so much. Physicists in Japan are said to be hidden inside the ivory tower. Feeling their humanity through an event like

this will help the audience to feel more familiar with physics. Takahashi said that the physicists liked to talk very much. She has had several occasions to make interviews to report on their activities, and it often took more than two hours though the original appointment had been for 30 minutes. She feels there are a lot of good candidates for speaker for another 'Accelerator's Night'. They are planning to have the next event in May.

-- *Junpei Fujimoto*