

Summer Challenge programme for young intelligence

About 90 students from all parts of Japan gathered at the Summer Challenge programme held at KEK, Tsukuba from 21 to 29 August 2010. Starting in 2007, this programme intended for junior students who are interested in high-energy physics was the fourth in the series this year.

“The aim of the Summer Challenge programme is to encourage young students who will form the basic science for future,” said Tomiyoshi Haruyama who acts as a head of the programme. “When they were children, they must have had the experience to be surprised by a strange phenomenon they had never seen before. I want them to be surprised once again, by the frontier facilities, the experiments and realise why they like science. So, I made the theme of this year’s programme “You will be astonished, this summer”.”

This programme includes series of lectures, and facility tour of KEK, including the KEKB accelerator, the Accelerator Test Facility (ATF), the Computing Science center and J-PARC.



Summer Challenge poster



Participants of the Japanese Summer Challenge also learned how superconducting cavities work.

The students chose the theme they wished to study out of 17 subjects, and worked on the experiment in a group of few people. One of the themes of experiments was superconducting high-frequency cavities, one of the main parts of the ILC accelerator. In this experiment, they studied the cavity design method by electrostatics, measured the performance of the superconducting cavity at 2K and superconductive characteristics of niobium. Kenji Saito, associate professor at KEK who was the teacher of this experiment said, “I want them to understand physics concretely not by reading books but by experimenting by themselves and feel that physics is interesting.” Mami Suzuki from Tokyo University of Science, one of the six students who studied about superconducting high frequency cavity in Saito’s class said, “I have been interested in accelerator physics before I took this class and I know about the ILC. This experiment is

difficult for me, but I am happy because I can do the experiment which cannot be done at the University.”

The memories of tackling physics seriously with their colleagues this summer will help students to decide about their future. The number of students interested in the ILC programme may increase through this experience, and there would be the future researchers who will drive the ILC in the participants of this programme.

-- Yu Takahashi