

ATF shuts down for summer

On the last day of May, ILC scientists and engineers enjoyed a barbecue, sushi and Ton-jiru miso soup with pork and vegetables in front of the ATF ([Accelerator Test Facility at KEK](#)) container. This gathering, called the ATF end-of-run party, has been a routine event for over ten years. "We have this kind of party twice a year, one in April, for welcoming newcomers to the ATF project, and the other in June when we shut down ATF for the summer season," said Nobuhiro Terunuma, accelerator scientist at KEK. During the summer season, KEK shuts down ATF operation for about four months for machine maintenance and saving power consumption during the high season. "This year, we shut ATF down earlier than usual because of the construction of ATF2," said Terunuma. About a half of the 48 attendees were non-Japanese, from China, Korea, India, Russia, US and UK. "I think that this kind of gathering is important," said Terunuma. Scientists are working in groups, and often see and interact only with colleagues who are in the same group. "I think this kind of party helps us to feel united," he added.

ATF is going to shut down, but the scientists won't be on summer vacation. "We have so many things we can do only during the shut-down period," said Terunuma. ATF is being operated in three-week cycles: two weeks operation and one week shut-down. Shut-down periods are the only time for scientists to get into the accelerator tunnels. "ATF is a test facility, so we want to conduct as many tests as possible." But things they can do during one-week period are limited. Some small modifications of systems or installations of the devices are possible, but not major changes.

The construction of the upstream section of the [ATF2](#) beamline has been finished. During this shut-down, the construction for the downstream section of the beamline will be done. The extraction line of the ATF will be disassembled and then reassembled for the ATF2. "Dismantling is not difficult, but reassembling it and the adjustment will take time."

ATF2 can be described as a small-scale ILC final focus system, since many features of ATF2 are common to the ILC final focus system. The two have an identical optical design. It will address the challenge of beam focusing by establishing the technology associated with ultrahigh precision beam control. This creates a tightly focused stable beam by making use of the small emittance beam from the ATF.

It was a cold day for May, and the party ended with a campfire. ATF and ATF2 will start running again in mid October.

-- Nobuko Kobayashi / Rika Takahashi



The ATF collaboration celebrates the end of run. (Photo: Nobuko Kobayashi)