

High Energy Accelerator Research Organization (KEK)  
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Sep. 9, 2017

Dear Sir or Madam,

My name is Yoshihiro Funakoshi. I am in charge of the beam commissioning of KEKB and SuperKEK. In SuperKEKB, we will adopt a new collision scheme which we call "nano beam scheme". With this scheme, we will aim at an extremely high luminosity of  $8 \times 10^{35} \text{ cm}^{-2}\text{s}^{-1}$ , which is 40 times higher than the world record achieved at KEKB. SuperKEKB is a very challenging machine and we expect lots of difficulty in the beam collision tuning and other tunings toward the design goal of the luminosity. The Large Angle Beamstrahlung Monitor (LABM) being developed by the group headed by Dr. G. Bonvicini is expected to give us valuable information on the beam collision conditions by a very unique method. We think that the LABM will be a very useful tool for the beam collision tuning and the luminosity tuning.

As you may probably know, the Phase 1 beam commissioning of SuperKEKB, where no beam collision was performed, was finished last year. The Phase 2 beam commissioning is planned to start in Feb. 2018 and to continue for about 5 months. In Phase 2, we will start the beam collision. In the present plan, the Phase 3 commissioning will start in autumn 2018 and continue for many years. We hope that the LABM will work fine and provide us with valuable information both in the Phase 2 and Phase 3 beam commissioning.

With best regards,

Yoshihiro Funakoshi (Leader of the SuperKEK beam commissioning group,  
Accelerator Laboratory, KEK)