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## Beam loss measurement at AichiSR storage ring

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We are developing a system of beam loss monitor at the Aichi Synchrotron Radiation Center, AichiSR in Japan, for accelerator operation stable. AichiSR is a light source mainly for industrial applications with a 1.2 GeV electron storage ring, the circumference of 72 m. It is operated with a beam current of 300 mA at all times by top-up injection. The beam loss measurement uses PIN photodiode BLMs from Bergoz. The BLMs are fixed to beam ducts of the storage ring and the detector outputs are measured with an oscilloscope just after 1 Hz beam injection with using four pulse kickers. Several continuous and strange signal waveforms were observed during a few microseconds of the kickers operation. Since the signals were synchronized with the beam circumference time of 240 ns, we have considered that the signals contain coordinate information of the beam loss in a circumference of the storage ring and derived the stepwise loss distribution of one injected beam. In this presentation, the simple method and results of time-resolved beam loss measurement using a photodiode BLM is discussed and development status of the monitor system at AichiSR is reported.

### Footnotes

### Funding Agency

### I have read and accept the Privacy Policy Statement

Yes

**Primary author:** FUJIMOTO, Masaki (Nagoya University)

**Co-authors:** Mr TANABE, Keigo (Nagoya University); TAKASHIMA, Yoshifumi (Nagoya University)

**Presenter:** FUJIMOTO, Masaki (Nagoya University)

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