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Commissioning of U17 and Eiger2 detector techniques for beam optimization

Tuesday 3 June 2025 16:00 (2 hours)

Between 2016 and 2026 four new insertion devices will be installed in the storage ring for the BioSAX, MX3, ADS and Nano Beamlines*. The latest ID to be commissioned is the U17 for MX3. The measured fields and spectra of U17 will be presented indicating that the RMS phase error of $< 2.6^\circ$ was achieved.

In the process of optimising the characterising the photon beam from U17 a technique using the fast Eiger2 detector was capable of detecting beam motion up to 500 Hz in real time. This diagnostic was then used to determine the sensitivity of the beamline to electron beam motion, and help optimise the Fast Orbit Feedback (FOFB) parameters.

Footnotes

- Tan, Yaw-Ren et al., In Proc IPAC24 (2024). 10.18429/JACOW-IPAC2024-THPS17.

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