Contribution ID: **1576** Contribution code: **WEPB056** Type: **Poster Presentation**

Status of VPU development for PAL-XFEL

Wednesday 4 June 2025 16:00 (2 hours)

PAL-XFEL is planning to install second hard X-ray undulator line (HX2) to meet the high beamtime demand from the users. The photon energy range for the second hard X-ray beam line is from 2˜ to 11 keV which is lower than the first hard X-ray photon energy range (2 ˜ 20 keV). The required undulator parameters are 35 mm period, max Keff=3.48 at 9.00 mm gap, ˜ 3.0 m magnetic length with phase error less than 5 degrees. In addition to the existing conventional undulator design, horizontal gap vertical polarized undulator (HGVPU) concept is also being considered. HGVPU is well developed by LCLS-II team and applied in LCLS-II. In this report, we summarize the VPU design for PAL-XFEL HX2, and reports progress in the prototyping.

Footnotes

Paper preparation format

LaTeX

Region represented

Asia

Funding Agency

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Session Classification: Wednesday Poster Session

Track Classification: MC7: Accelerator Technology and Sustainability: MC7.T15 Undulators and Wigglers