Contribution ID: **550** Contribution code: **WEPD050** Type: **Poster Presentation**

Status of development and application of the Pyapas at HEPS

Wednesday, 24 September 2025 16:30 (1h 30m)

To meet the stringent requirements of beam commissioning at the High Energy Photon Source (HEPS), China's first fourth-generation high-energy synchrotron light source, a new high-level application (HLA) framework named Pyapas was developed entirely in Python. Designed for flexibility and maintainability, Pyapas serves as the foundation for all HLAs at HEPS, supporting tasks such as orbit correction, optics measurement, and machine modeling. Since early 2023, Pyapas-based HLAs have been successfully applied during the commissioning of the Linac, booster, and storage ring, contributing to key milestones including first light in October 2024. This paper summarizes the major developments and applications of HLAs at HEPS and outlines the direction of future work.

Funding Agency

Footnotes

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Session Classification: WEPD Posters

Track Classification: MC10: Software Architecture & Technology Evolution