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Design of HEPS beam diagnostics

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HEPS is a fourth generation light source which has horizontal emittance around 34pm.rad and high brilliance photon beam, this ultra-low emittance brings many engineering challenges for beam instrumentation. Self-developed digital BPM electronics and scintillate BLMs contributed more in first turn and day one commissioning. The gird designed by combining carbon fiber and invar alloy have effectively suppress the long drift of the BPM system. Additionally, synchrotron radiation measurement system based on KB mirror has successfully captured the first synchrotron light and provided real-time beam size measurements. This talk will present an overview of beam instrumentation of HEPS.

Footnotes

Funding Agency

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Yes

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