### IBIC2024 - 13th International Beam Instrumentation Conference



Contribution ID: 212 Contribution code: WEP31 Type: Poster Presentation

# Beam profile monitor design at HEPS storage ring

Wednesday, 11 September 2024 14:20 (1h 30m)

High Energy Photon Source (HEPS) is a 6 GeV ultralow-emittance light source, the transverse beam sizes of the storage ring will be less than 10 µm. In order to measure such small beam sizes in both directions, a beam diagnostic beamline with two crossed cylindrical Kirkpatrick–Baez (KB) mirrors was designed. Before that, a test KB imaging system was installed at SSRF to test the performance of KB mirrors. By varying the beam sizes with different skew quadrupole settings, different beam images were observed, the horizontal beam sizes were coincidence with the theoretical values. In this paper, the performance of the test KB system will be introduced, the HEPS diagnostic beamline design will be also introduced.

#### **Footnotes**

## **Funding Agency**

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Yes

**Primary author:** Dr ZHU, Dechong (Institute of High Energy Physics)

Presenter: Dr ZHU, Dechong (Institute of High Energy Physics)Session Classification: WEP: Wednesday Poster Session

**Track Classification:** MC4: Transverse Profile and Emittance Monitors