



Contribution ID: 283 Contribution code: TUP29

Type: **Poster Presentation**

Offline Calibration and Error Correction of the Stripline BPM for the HALF Injector

Tuesday 10 September 2024 16:00 (1h 30m)

This study conducted offline calibration tests on the stripline Beam Position Monitor (BPM) designed for the Hefei Advanced Light Facility (HALF) injector. The Lambertson method was used to measure the offset between the electrical center and the mechanical center of the BPM, with results showing horizontal and vertical offsets of 0.1154 mm and 0.1661 mm, respectively. Additionally, the wire-scan method was employed to construct the BPM mapping, and polynomial fitting was applied to effectively reduce the BPM's nonlinearity and system errors. The experimental results provide essential data support for the optimization and practical application of the BPM in the HALF injector.

Footnotes

Funding Agency

I have read and accept the Privacy Policy Statement

Yes

Primary author: WANG, Dongyu (University of Science and Technology of China)

Co-authors: WANG, Jianye (University of Science and Technology of China); WANG, Chuhan (University of Science and Technology of China); WANG, An (University of Science and Technology of China); MA, Ming-Dong (University of Science and Technology of China); LAN, Jinkai (University of Science and Technology of China); WU, Ruizhe (University of Science and Technology of China); Dr MA, Xiaochao (Budker Institute of Nuclear Physics); LU, Ping (University of Science and Technology of China); SUN, Bao-gen (University of Science and Technology of China); TANG, Leilei (University of Science and Technology of China); WANG, Anxing (University of Science and Technology of China)

Presenter: WANG, Dongyu (University of Science and Technology of China)

Session Classification: TUP: Tuesday Poster Session

Track Classification: MC3: Beam Position Monitors