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## Test of parallel beam-based alignment at NSLS-II

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Misalignment of magnets in the storage rings causes trajectory deviation when the beam traverses through magnets, resulting in the degraded performance of linear optics and nonlinear dynamics. The beam-based alignment (BBA) technique is commonly used to steer the beam passing through the centers of magnets. Recently, a new method has been developed to determine the centers of multiple quadrupole magnets simultaneously [1]. In this paper, the test of this fast BBA method at NSLS-II is presented and compared with the traditional BBA method.

### Footnotes

[1] Xiaobiao Huang, 'Simultaneous beam-based alignment measurement for multiple magnets by correcting induced orbit shift', *PHYS. REV. ACCEL. BEAMS* 25, 052802 (2022).

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